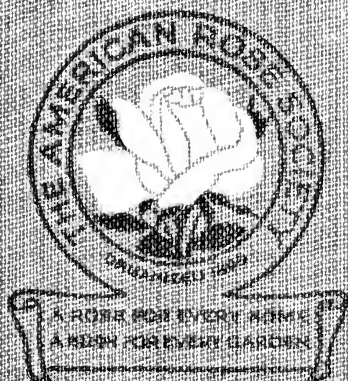


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THE AMERICAN ROSE ANNUAL



1917

THE AMERICAN ROSE SOCIETY

The American Rose Society

ORGANIZED 1899

MEMBERSHIP

LIFE MEMBERS pay \$50, and are thereafter exempt from the payment of dues. Life members receive all publications, may vote at all meetings, and are entitled to admission to all exhibitions in charge of the Society. The funds received from Life members are invested as a permanent sustentation fund.

ACTIVE MEMBERS pay \$3 annually, receive all publications, may vote at all meetings, and are entitled to admission to all exhibitions.

ASSOCIATE MEMBERS pay \$1 annually, receive all publications, and are entitled to admission to all exhibitions. No working florist or gardener is eligible for Associate membership.

AFFILIATION

Any organization holding an annual show or exhibition at which roses are exhibited may affiliate with the American Rose Society, upon arrangement with the Secretary, receiving in consequence the American Rose Annual for each member, and also one Silver and two Bronze Medals for award at exhibitions.

EXHIBITIONS

The American Rose Society holds annually one or more exhibitions. In 1917, it inaugurated a National Rose Festival, held in Philadelphia on March 20 to 23. A large sum was offered in premiums at this Festival and the Society itself exhibited a great rose-garden. Details will be found in this Annual, or may be had on application to the Secretary,

E. A. WHITE, Cornell University, Ithaca, N. Y.

THE AMERICAN ROSE ANNUAL

This publication is mailed to all Life, Active, and Associate members, and copies are sent to the secretaries of all affiliated societies for each member thereof for whom the proper payment has been made to the American Rose Society.

EXTRA COPIES may be had, by members only, at 75 cents, upon application either to the Secretary or to the Editor's office, Box 655, Harrisburg, Pa. Inasmuch as only the required number of copies is printed each year, it is desirable to order in advance for additional copies.

SUGGESTIONS, CONTRIBUTIONS AND CRITICISMS will be welcomed by the Editor, at the above address. It is particularly desired to secure rose information for the 1918 Rose Annual with photographs if convenient.

THE AMERICAN
ROSE ANNUAL

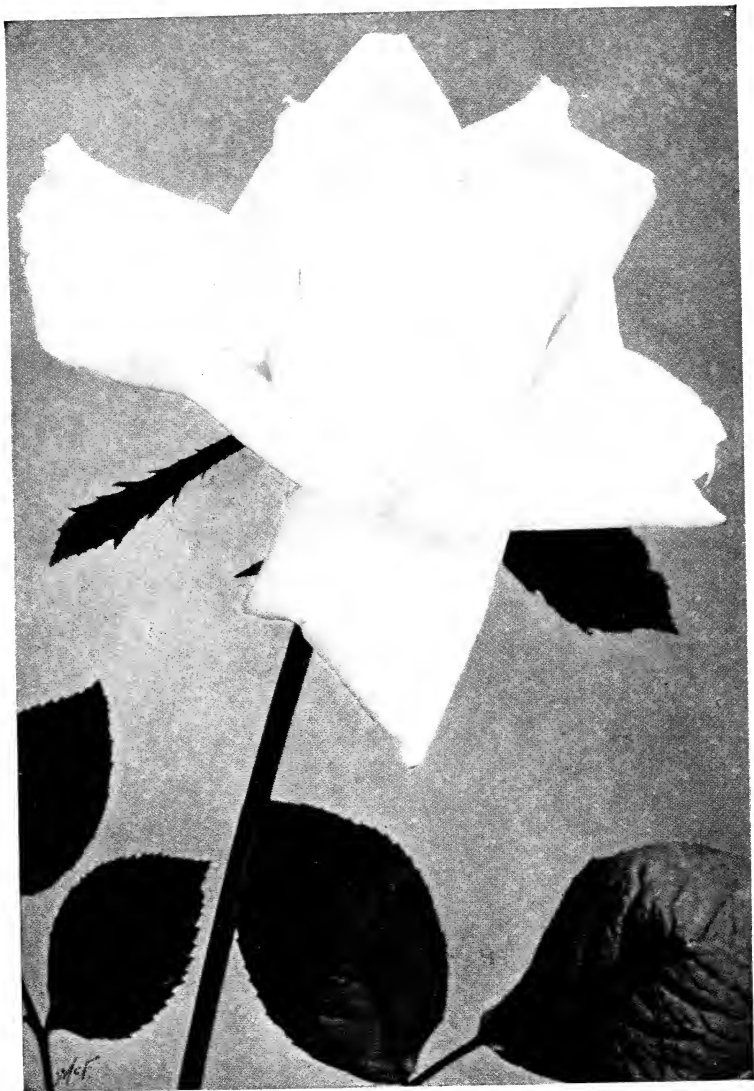


PLATE I. John Cook's unnamed American seedling
(Frau Karl Druschki \times Mrs Charles Russell), not yet in commerce.
Two-thirds natural size

THE AMERICAN ROSE ANNUAL

*THE 1917 YEAR-BOOK OF
ROSE PROGRESS*

EDITED FOR THE AMERICAN
ROSE SOCIETY, BY

J. HORACE McFARLAND

SECOND EDITION



1917
AMERICAN ROSE SOCIETY
EDITOR'S OFFICE
HARRISBURG, PA.

THE American Rose Annual is supplied to all members of the American Rose Society. Additional copies to members only, 75 cents each, post-paid. Others may obtain the Annual by remitting \$1 for Associate Membership to

E. A. WHITE, SECRETARY, ITHACA, N. Y.

Ann 3a
O. P. Beckley
1918
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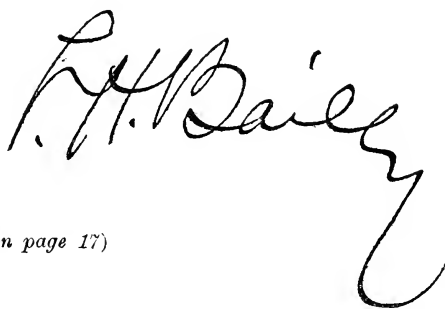
By J. HORACE MCFARLAND, Editor

*The 1918 American Rose Annual will be issued
March 1, 1918. J. Horace McFarland, Editor;
O. P. Beckley, Adver. Manager, Harrisburg, Pa.*

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printed by the*
J. HORACE MCFARLAND COMPANY
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Harrisburg, Pa.

THE ROSE

"The interest in the rose cannot pass. The appeal of the flower is practically universal. The variety in form and color is wide and the adaptations remarkable. It has become part of the experience of the race."

A large, stylized handwritten signature in cursive script, reading "R. H. Bailey". The signature is written in dark ink and occupies the lower right portion of the page.

(See article on page 17)

THE AMERICAN ROSE SOCIETY

ORGANIZED MARCH 13, 1899

*"To increase the general interest in the cultivation and improve
the standard of excellence of the Rose for all people"*

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MEMBERSHIP

Life Members (\$50) and Active Members (\$3 annually) receive all publications, tickets to all exhibitions, and are entitled to vote at all meetings.

Associate Members (\$1 annually) receive all publications, including this Annual, and tickets to all exhibitions.

Remit, with full address, to E. A. White, Secretary, Ithaca, N. Y.

*Deceased

EDITOR'S PREFACE

THIS second American Rose Annual is issued in hopefulness and in gratitude. In the preface to last year's Annual, three aims were mentioned. The first, that of striving "to deepen interest in the Rose in America," has assuredly met with a degree of success. The aim of "joining rose workers to the American Rose Society" has likewise been promoted materially, as may be seen by referring to the list of members beginning on page 146, where, if anyone cares to count, it will be noted that the increase over last year in amateur or Associate memberships is fully twelvefold; and it is continuing. The desired "aid in making future issues much more helpful and adequate" has been cheerfully given the Editor, as he here gratefully acknowledges.

In a way hardly contemplated at the beginning, the Editor has found the work and welfare of the American Rose Society so interwoven with the making of the Annual that much effort planned for the latter has come to relate closely to the organization itself. The membership increase above noted is one of the consequences of this unexpected condition.

The number of new roses of American origin registered with the Society, and the activity of the rose hybridizers, indicate the advance of the effort to provide American roses for America. The statistics as to importations found on page 56, and the constructive suggestions as to suitable stocks and methods of propagation, ought to point the way toward developing a far greater American industry in rose production.

It is with real pride that attention is called to the illustrations of "made in America" roses appearing in this Annual. These are an earnest of the progress of American hybridization.

To the Editor there is much of consequence in the suggestions to be found in the following pages relating to the holding of many June rose shows, simple and local in character, but promoting materially and desirably the aims of the American Rose Society. It is hoped that 1917 will see the successful establishment of the rose-show habit in America.

In line with the securing of greater attention to amateur

rose-growing comes the establishment of a new test-garden in Portland, Oregon, and the increase of interest in the existing test-gardens, the records from which another year ought to be of real value. It is not an idle dream to look forward to many more well-founded and well-conducted rose test-gardens, in which millions of our people may read the message of the rose, and acquire the impulse to have roses for themselves.

Seemingly the first earnest endeavor to establish an accurate record of roses raised in America is the one of which evidence will be found on pages 117 to 127. If this publication is soon followed by the carefully made catalogue of all roses in American commerce which it is the desire of the Editor to issue, it is believed that rose-growing will be further benefited.

The worth-whileness of the American Rose Society is shown in its promotion of the first orderly study of rose diseases by a trained pathologist, as reported on page 92. The liberal men who have made this work possible are named on page 141.

The Editor gratefully acknowledges the help of the rose friends whose interest and knowledge alone have made this Annual possible. These friends have cheerfully joined him in the labor of love of which this little book is the evidence. He also acknowledges with hearty thanks the greetings and assistance received internationally, from Canada and from England, making evident the peaceful supremacy over political lines of the rose.

The horticultural tradesmen whose announcements appear in this book are men in whose offerings to rose-growers every confidence may be reposed. Effort has been made by the Advertising Manager to have set forth reliable sources for the satisfying of every rose need.

Again the Editor appeals to friends of the rose for suggestions, information, criticisms, and experiences, toward the end of making the next Annual better. It is, indeed, the rose people who make this book; the Editor merely puts it together.

J. HORACE McFARLAND

*Harrisburg, Pa.,
March 10, 1917*

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PLATE II. Benjamin Hammond
Secretary of the American Rose Society since 1905; elected President March 21, 1917

THE AMERICAN ROSE ANNUAL

The Progress of the American Rose Society

By S. S. PENNOCK, President, 1916

DURING the year 1916, the American Rose Society has made greater progress than during any other year in its history. This progress has been in several directions, which, for the information of its members and friends, I desire here briefly to follow.

The membership of the Society has materially increased, in both the Active and Associate classes. In addition to a healthy growth in the Active membership, there has resulted an increase in Associate membership to at least eight times the number recorded one year ago, and this increase is continuing.

The year 1916 witnessed the publication of the first issue of the American Rose Annual. This serious record of rose progress was planned, not only to record the happenings of the previous year, but to put into available form previously unpublished rose material in the hope that it might be influential in promoting rose-growing in all its forms, and particularly the production of American roses for America.

The favorable reception accorded to the 1916 Rose Annual is the best comment on the success of this attempt. The Editor of the Annual, Mr. J. Horace McFarland, found ready and cheerful coöperation among the members of the Society, and a hearty accord with the purpose in mind among those not in the Society who could afford proper help. It is believed that the articles presented in the 1916 Annual on possibilities in rose-breeding, on the rose species available from China and elsewhere, on America's efforts in rose-growing and rose-breeding, on the diseases and insects which affect roses, on rose popularity in various parts of the United States and Canada, on rose organizations, and on roses grown for cut-flowers, were of such value that the volume will long remain a standard reference

book, comparing favorably with the best issues of the National Rose Society of England.

It was in consequence of the discovery, in the course of the preparation of the 1916 Annual, that no orderly study of rose diseases had ever been undertaken in the United States, that the Society started the raising of a research fund to be used in supporting for two years a skilled scientific worker assigned particularly to the study of rose diseases. A liberal response to the call for subscriptions from interested rose-growers all over the country made it possible for the officers to arrange through Dr. H. H. Whetzel, the Pathologist of Cornell University, for the employment of Dr. L. M. Massey to undertake the disease study desired. The University itself bears an important part of the cost of the work.

Dr. Massey began work in the early fall, and his accomplishments up to date have been most gratifying, even though it was not expected that there would be any particular result for at least a year. For example, his investigation of a new trouble which besets cut-flower rose-growers, a form of crown or root disease, is likely to result in the early checking of a trouble which might easily have put many growers entirely out of business. The research fund was solicited largely through personal effort, and it is my sincere hope that the subscriptions will be renewed and extended, so that the work may be carried on for another year, or as much longer as is necessary to fully advise the members of the Society as to rose diseases and their control.

The various test-gardens supervised by the Society have increased in attractiveness and value during 1917. Arrangements have been completed for the establishment under unusually favorable conditions of a test-garden in Portland, Oregon; and the opening year will doubtless see the beginning of scientific recording in all these gardens.

The minutes and proceedings printed in this Annual will inform the members in general of the activities of the Society during the year. The Executive Committee has held many meetings, and I wish particularly to record here my appreciation of the self-sacrificing efforts of those members of the committee who have not considered time nor expense in their endeavors to promote the work of the Society.

At the great National Flower Show, which was held in Philadelphia between March 25 and April 2, 1916, members of the American Rose Society presented a wonderful exhibition in rose-gardens, as well as in special rose displays and cut roses, that won the admiration of tens of thousands of visitors.

The rose-garden feature was pleasing and popular, and so obviously in line with the best work this Society could undertake that, after much discussion, it was resolved to undertake a rose show (including a rose-garden as the central feature), to be called the American Rose Society's rose-garden, to be managed entirely by the Society, and to be known as the National Rose Festival. To the arduous work of promoting this rose festival, the officers and members of the Society have, upon request, given of their best efforts with cheerful enthusiasm. It is believed that this show, which occurred in the First Regiment Armory, Philadelphia, March 20 to 23, 1917, will prove the starting-point for several rose exhibitions each year, to be conducted under the auspices of this Society, through which public interest will be greatly stimulated.

It is one of the hopes cherished by those of us who have labored long in the American Rose Society that there shall soon come about a June rose festival, participated in extensively by the prominent amateur rose-growers of the country, who are rapidly coming into the membership of the Society.

I have witnessed with great gratification the increased attention paid to roses of American origin during the year 1916. It is apparent that we are on the eve of a vastly increased interest, not only in rose-growing in general, but in the production in America of rose varieties, which can not but be most beneficial.

Attention to rose-growing, not only among the commercial men, but more particularly among the amateurs, is obviously increasing by leaps and bounds. I confidently believe that a few years hence we will be able to look back to the achievements of 1916 as the starting-point of a great American rose movement. To promote this desirable movement, I earnestly urge every member of the Society not only to take renewed interest in the rose for itself, but to help the organization by turning in during 1917 at least a half dozen new memberships.

The Use of the Rose in the Landscape

By WILHELM MILLER, Landscape Architect, Chicago, Illinois

EDITOR'S NOTE.—Dr. Wilhelm Miller writes with the authority of study and knowledge. Associated with Dr. Bailey in the production of the first edition of the "Cyclopedia of American Horticulture," he later became editor of "Country Life in America," and of "The Garden Magazine." To his credit are several important books, and also very much to his credit is the good work done in connection with the University of Illinois, as a professor of which he greatly stimulated rural improvement in that state.

IT is a pity that garden or double roses do not thrive everywhere, for then the world would be a bower of roses! Whether another pair of mortals might get sick of living in the new Eden I cannot say, but of one thing I am sure; every beginner in gardening tries to solve every planting problem with roses. When Portland, Ore., deliberately set out to become famous as the "City of Roses," people put double roses against the foundations, in the parkings, and at the boundaries. They made double rows leading to the front doors, they lined the sidewalks with hedges, and they put rose-beds in the middle of the lawn. Experience soon taught them that double roses in such positions do not thrive as well as in the garden, and because they do not thrive they do not look appropriate. The queen of flowers appears to best advantage in her own home and surrounded by her courtiers. Perpetuals and Hybrid Teas cannot hold their own in a shrubbery border with such rampant bushes as lilacs, weigelas, and syringas. They are too subject to insects and diseases.

A new "landscape gardener" has struck the town where I am visiting. He is planting roses in every yard. He also removes ashes. He was formerly a janitor, but the indoor life got on his nerves. This is his first experience in landscape work, and it combines beautifully with garbage disposal. He plants Kaiserin and Killarney in all the positions above mentioned—and then some. He is a Christian gentleman and a lovely furnace tender, but he has a lot to learn about landscape architecture. He *is* learning a little—at great expense to others.

There are hundreds of these self-styled landscape gardeners in the same boat. I can picture the bewilderment of these poor

fellows when complaints begin to pour in and they go to the library to find what is the matter. They decide to "read up" on roses and consult "Bailey's Cyclopedia" for the first time. When it dawns on them that there are sixty species in cultivation, thousands of varieties, half-a-dozen climates to provide for, several soil-types, and dozens of practical uses to be considered, the complexity of it all is likely to make some of them quit the landscape game and go back to the sub-basement. Alas! not all.

There must be some way of simplifying the bulk of this terrifying technical information, and the whole subject has newly crystallized in my mind as follows: *About 90 per cent of the commonest landscape problems can be solved with the aid of nine species of wild rose.* Most garden-lovers know a dozen or more varieties of the double rose. Is it asking too much to learn nine kinds of single rose, providing they have personalities as well marked as General Jacqueminot and Mrs. Aaron Ward? If not, I will name and describe them in a new way—telling something characteristic about each one that can be easily remembered, just as the cartoonist singles out one man's nose and another's teeth or whiskers.

THE NINE WILD ROSES EVERY AMERICAN SHOULD KNOW

Group 1. The American roses.

1. THE PRAIRIE ROSE (*Rosa setigera*) is our only climbing rose, and the only native rose that commonly has three leaflets.

2. THE CAROLINA ROSE (*R. carolina*, or *R. humilis*) is the most widely distributed native rose, and the commonest dwarf species, ordinarily attaining three feet—rarely six feet.

3. THE VIRGINIA ROSE (*R. virginiana*, or *R. lucida*) is badly named because it ranges only from Newfoundland to Pennsylvania. Attains six feet and has glossy foliage, while that of Carolina is dull. Also it has hooked prickles, while Carolina's are straight.

4. THE SHINING ROSE (*R. nitida*) is the dwarf New England rose with the shining foliage. Lowest of our native roses, growing eighteen inches high.

5. THE SWAMP ROSE (*R. palustris*) is distinguished from all the preceding by its finely toothed leaflets. Prefers moist soil and attains eight feet.

6. THE SMOOTH ROSE (*R. blanda*) has no thorns—only a few soft prickles

Group 2. The Japanese roses.

7. THE WRINKLED ROSE (*R. rugosa*) has the best foliage of any rose in cultivation—thick, shiny, wrinkled—and almost the biggest fruits, often an inch in diameter. It is the most popular of all shrubby roses.

8. THE MANY-FLOWERED ROSE (*R. multiflora*) is the most popular climbing

rose with single flowers and is the chief parent of the Ramblers. Normally white-flowered.

9. THE MEMORIAL ROSE (*R. Wichuraiana*) is the only near-evergreen and the only species here mentioned that has numerous leaflets (usually nine). White-flowered, and normally a trailer, it is one parent of many fine climbers.

In ordinary or conventional landscape gardening the Japanese species are much more popular than our native species.

In the highest type of landscape work—restoration—pure composition is absolutely necessary. The species native to each locality are to be used exclusively—no foreigners. In such work it is imperative that the landscape architect shall know his American roses and know them well. It will be found that the above names do not agree very well with the various editions of Gray and Britton, but they represent the very latest and most practical classification—the one that nurserymen will use—Rehder's, in Bailey's "Standard Cyclopedia of Horticulture." Stick to that if you want to do things. Know your native roses forward and backward, like your O. Henry.

For foundation planting the favorite is the wrinkled rose, but it gets scaly and straggly, and should be cut to the ground every four or five years, or have some of the old wood removed every year. I like the prairie and many-flowered roses better for this purpose. Put roses on the sunny side of the house.

For porch decoration people commonly used double-flowered ramblers. These are certainly allowable amid artificial surroundings. In natural surroundings the favorites are the many-flowered, memorial, and prairie roses—about in the order named.

For hedges the beginner commonly turns to the wrinkled rose, especially at the seashore. But informal borders of shrubbery in variety generally give more satisfaction than a formal hedge.

For borders all the the nine species above named are suitable. This is the commonest and most important use of wild or single roses. It is better, usually, to plant the boundaries informally with wild roses and other shrubs than to use a trimmed hedge. The former practice makes a home blend with the environment, while the latter makes it stand out in sharp and artificial contrast.

For winter value the wrinkled rose is the most famous, because it has very large fruits. However, these are hardly

attractive after Christmas, while the fruits of Nos. 1 to 5 and 9 are attractive all winter, those of the prairie and many-flowered roses being the best. Of the red-stemmed species the prairie is the favorite, but Nos. 2 to 5 are also good.

For parkings the dwarf species are best, at least near the danger-points where children are likely to be killed by automobiles. This means the Carolina, shining, and memorial roses, although the many-flowered rose can be treated as a low shrub.

For edging walks, drives, and borders use the list given for parkings.

For localities subject to petty thievery the shining rose is best. You can plant daffodils in the protection of its thorns with little danger of the flowers being picked.

For arbors, pergolas, pillars, trellises, and garden arches the three climbers are the best.

For holding steep banks the three climbers are also better than the shrubby species.

For waterside planting the swamp rose is appropriate, but the finest effects come from planting the climbers on top of the bank. The prairie rose arches over to meet the water while the other two have a flowing, pendent grace that is doubly beautiful when reflected in the water.

For roadside planting nature has suggested the Carolina rose.

For regions that are overrun with rose bug use the dark-colored species, as the chafers work mostly on white and light-colored flowers. They are worse in sandy regions. In those localities try garden roses budded on the dog rose, or use sweet-brier, which sometimes runs wild in sandy regions.

Have you found roses satisfactory in shrubbery planting? The article in the 1916 Annual, "Roses in the Landscape," gave many suggestions. The Editor will welcome notes or pictures about rose-landscape plantings, for the extension of the subject in the 1918 Annual.

The Literature of the Rose

The Rose in the "Standard Cyclopedia of Horticulture"

By L. H. BAILEY, Ithaca, N. Y.

EDITOR'S NOTE.—The publication, early in 1917, of Dr. L. H. Bailey's great six-volume "Standard Cyclopedia of Horticulture" marks an epoch in American progress with things that grow. Dr. Bailey's statement upon the basis of the extensive treatment of the rose in the fifth volume is in point.

I AM requested to explain for the Rose Annual what has been prepared for the rose-grower in the "Standard Cyclopedia of Horticulture." This I am glad to do, for the effort was made to give special attention to this very important subject. All the entries in a cyclopedia, from A unto Z and the appendix, must receive their proper attention, with no slighting of the material no matter how short the account may be; yet certain articles must be fuller and longer than others, representing the emphatic and cardinal stress of the book. In a cyclopedia of horticulture for American conditions, such stress must be placed on rose, chrysanthemum, sweet pea, lettuce, tomato, apple, peach, strawberry and many others. The important articles of this class in the Standard Cyclopedia comprise many hundred.

Of all the great florists' genera described in the Cyclopedia, rose receives the most pages of text, the greatest number of illustrations, and the largest number of articles by experts. Rose and Rosa together occupy thirty-seven pages, with fifty-five regular text illustrations, and two full-page cuts of which one is in color. In the making of each page of the Cyclopedia, about 10,000 pieces of type metal are used; the printers of the J. Horace McFarland Company have handled about 370,000 pieces of metal on the rose articles alone.

The treatment of the rose is a symposium—made up of the combined yet separate contributions of different writers, ten of them in all. To understand the rose, one must know something of the species. Many of these species have entered into the origin and evolution of the florists' and fanciers' roses, and

others are planted as shrubbery. The article on the genus *Rosa* is more complete than any other publication of its kind in this country. It regularly describes sixty species, with seventy more in the supplementary list at the end of the article. It accounts for more than 300 Latin or botanical names of *Rosa*. This article is prepared by Alfred Rehder, of the Arnold Arboretum, near Boston, who has access to a large growing collection, a very large herbarium, and who is a student of the genus. The recent additions to knowledge in this group, and the application of current rules of nomenclature, have made considerable change in the species, and yet these changes are not confusing unless perhaps in the present use of the name *Rosa polyantha*. The *R. polyantha* of botanists is one thing (synonymous with *R. multiflora*), while the *R. polyantha* of horticulturists is another thing, being a trade name for a group of hybrids. It would be well to drop the name from horticultural classifications.

The articles under the entry "Rose" are nine in number. This symposium comprises a general introductory account, with a list of the main botanical species involved, and a statement of the founding and work of the American Rose Society and affiliates. Then follows a classification of horticultural roses by Leonard Barron; propagation by B. M. Watson; roses for the amateur, by Dr. Robert Huey and Dr. A. C. Beal; outdoor roses for the mid-continental region, by H. C. Irish; roses in California, by Ernest Braunton, with lists by him for southern California, and for the state at large by John Gill; roses under glass, by W. R. Pierson, with a discussion of houses and heating, soils, propagation, varieties, diseases and insects, general cultivation, cutting and marketing; rose insects by C. R. Crosby and M. D. Leonard; rose diseases, by L. M. Massey.

The troubles of roses are also listed, with many others, in the general symposium on diseases and insects in Volume II; and the articles on greenhouses, in Volume III, will also be of interest to rose-growers as well as to others.

The interest in the rose cannot pass. The appeal of the flower is practically universal. The variety in form and color is wide and the adaptations great. It has become part of the experience of the race.

Francis Parkman on Roses

By M. N. BAKER, Montclair, N. J.
Editor Engineering News

EDITOR'S NOTE.—It is indicative of the widespread interest in the rose that the editor of an important engineering periodical should be an appreciative rose-lover, and that he should bring to our attention an almost forgotten rose-book.

HOW many readers of the *Rose Annual* know that Francis Parkman, the great American historian, was not only an enthusiastic and successful cultivator of roses on a considerable scale but also wrote what was in its day an eminently practical volume entitled "The Book of Roses?" (Boston. J. E. Tilton & Co. 1866. 225 pages.) Parkman sought relief in horticulture from the ill health that would have wrecked the useful life of any but the most extraordinary of men. In the preface to "The Book of Roses," dated January 1, 1866, he declared that "the object of this book is to convey information" and that he had cultivated roses for many years, putting in practice "methods found successful abroad" and learning "the extent to which they are practicable here." The results of his own experience, he says in concluding his preface, "are given, as compactly as possible, in the following pages." Combined with his own experience are judiciously selected passages from some of the best foreign writers, notably Rivers.

The last twenty-five pages of the book are occupied with a list of "Roses Most Approved by the Best Cultivators of the Present Day, in addition to those already mentioned under their respective classes." This list, together with the author's personal experiences in cultivation and propagation, his accounts of the origin of many varieties of roses, and his characterizations of the merits and demerits of different roses, can scarcely fail to interest any rose-lover of the present day.

The book is embellished with vignette title pages for the whole volume, for Part I, "Culture of the Rose," and for Part II, "Description of the Rose," and also with chapter head and tail-pieces—all charming woodcuts. Less successful esthetically, but adding variety and interest, are scores of specially designed and engraved chapter subheads, many of which bring in the

rose. The back cover of the original edition, now out of print, shows the title in green letters on gilt scrolls resting on a branch of the moss rose in flower. It will be seen that the volume as a whole has a strong appeal to both the rosarian and the bibliophile.

It may be added that in 1871 Parkman was appointed Professor of Horticulture in the Bussey Institution, Harvard University, but he resigned the position in 1872.

The Practical Book of Outdoor Rose-Growing

By GEORGE C. THOMAS, Jr. Fourth edition. De luxe form, special binding, 96 illustrations in full color, made from color photographs, and 35 black-and-white illustrations; 200 pages in both forms. Garden form, 16 color illustrations and 35 black-and-white illustrations.

WHILE this is announced as merely a new edition, it is, nevertheless, a new book. Mr. Thomas has practically rewritten it and brought it up to date.

The book is surely practical. No time is wasted in literary discussions or in history. Chapter I begins with propagation, and Mr. Thomas has succinctly summarized all methods of propagation, adding also citations to various books which he has found helpful.

Probably no one in America is better fitted to write on "The Best Varieties with Their Characteristics" than the author of this book. Mr. Thomas not only writes because he has grown the roses, but because in an extraordinary fashion he has had the details concerning the roses so recorded as now to be available. Thus, when he offers forty-eight roses among the Hybrid Teas as those which he can recommend, he does it on the basis of records ranging over several years' time and covering details which have not before been recorded so carefully by any rose-grower. The admirable detailed descriptions of these roses in a semi-tabulated form make it possible quickly to compare one with another in a novel and interesting way. After looking over this list the reader must feel that he has all available knowledge of the particular varieties thus commended as they have grown for Mr. Thomas.

There is in addition to this a comprehensive main list of

varieties, with carefully tabulated descriptions, which will be found immensely helpful to the thoughtful grower of roses. Not only are Hybrid Teas covered in these lists, but all other classes of roses hardy or approximately hardy in this climate.

Mr. Thomas has not only given his own experience in connection with the handling of roses, but has gathered at first hand the experience of other thoughtful growers. He covers in the chapters of the book many details upon which the average rose-book is silent.

Some rose partisans will not be pleased with Mr. Thomas' statements in respect to the comparative prosperity of roses on various stocks or on their own roots. Partisans seldom are pleased with the whole truth, but no one who reads this important book can have any other conclusion than that Mr. Thomas has always stated the whole truth as he finds it.

To the amateur rose-grower Mr. Thomas' book is of enormous advantage, and it is here heartily commended for that reason. The garden edition, though offered at one third the price of the complete or de luxe edition, contains all the text, all the one-color illustrations, and a selection of sixteen of the color subjects. It ought to have a large circulation.

THE OLDEST ROSE-GARDEN IN THE UNITED STATES

(See Plate X, facing page 97)

At Van Cortlandt Manor, Croton-on-Hudson, New York, is a rose-garden, yet prosperous and lovely, which has been in existence for more than a hundred years. The old loophole-pierced manor-house bears authentic date of "A. D. 1681."

Great rose-bushes are there in the garden, covered in June with myriads of old-time Centifolia, Damask, and other roses of the eighteenth and nineteenth centuries, including the "York and Lancaster" rose.

Direct descendants of the original owners—alas, the last of the line!—keep loving care over this rose-garden of historic value, and beautiful in itself.

The American Rose Advance

EDITOR'S INTRODUCTION

Under this heading are grouped articles relating to the notable progress scored in 1916 in the provision of more and better roses for America. It is believed that the student of rose advance will find here material for help and interest. Especial attention is suggested to the careful review of the new varieties, and to the propagating details found in two important articles.

Roses Worth While for Everybody

By GEORGE C. THOMAS, Jr.

Author of "The Practical Book of Outdoor Rose-Growing"

BEFORE considering the various types of roses adaptable to different sections of our country and the uses to which they may be put, it must be understood that climatic conditions are an important governing factor. It is, of course, impossible to draw an exact line where a certain class will do well or beyond which it will fail, but for all practical purposes the country may be divided into three main divisions:

First, the South and like regions, where there is practically no frost, on account of which nearly all roses may be grown, but where certain classes give the best results.

Second, the moderate sections, where the heat is not so intense but where there is more frost and not so long a growing season. This division comprises the Middle Atlantic States and other areas of the West and Pacific Coast where the temperature in winter does not go to zero for more than short and occasional periods. Here the more delicate types cannot be grown, and some other classes need winter protection.

Third, the northern section, where the winter climate is too severe for all but the very hardiest kinds, and in some parts of which even these require special care to survive the cold.

The lists for the various sections of the country are limited to varieties which have been thoroughly tested and which may be expected to give good results. There are other roses from which fair results may be expected, but unless large collections are desired, selection from the lists given should supply all the roses the average amateur will require.

For all divisions budded roses are recommended as better than own-root roses except for Climbers, Rugosas, and other hardy classes.

THE BEST FORTY-EIGHT GARDEN ROSES

*First or Southern Division**

In this region, while all of the weaker-growing Teas will do well, and while Bourbons and Chinas give good results, for the average home rose-grower the Hybrid Teas are the best for cut-flowers and garden decoration. Appended is a list of forty-eight varieties—twelve light, twelve pink, twelve red, and twelve yellow. Several Teas are included, and one Polyantha which stands out as the best of its class, but the majority of the roses are Hybrid Teas.

LIGHT SECTION

Mme. Jules Bouche. H.T. White, center shaded primrose or lightest blush—varies; perfume mild; seventy-one blooms throughout the season; growth exceptionally fine; tall and plenty of canes. Excellent both for cutting and garden.

Grange Colombe. H.T. Cream-white with salmon-yellow and fawn center; perfume mild; fifty-five blooms throughout the season; growth sturdy and erect, with good number of canes. A good all-round rose.

Ophelia. H.T. Salmon-flesh, center shaded light yellow at base of petals; perfume fair, very delicate; forty-five blooms throughout the season as grown on Multiflora; growth fairly good. A beautiful cut-flower.

Jacques Porcher. H.T. Passing from white, shaded carmine on saffron center, to clear yellow with a darker center; perfume mild; sixty-nine blooms throughout the season; growth very good. A fine all-round rose, particularly desirable for garden decoration.

Souv. du President Carnot. H.T. Flesh shaded white, with us flesh to light shell-pink center; perfume mild; thirty-four blooms throughout the season on Multiflora; growth not of the best; tall but not uniform. Good for cut-flower.

Pharisaer. H.T. Rosy white, shaded salmon; perfume mild; forty-eight blooms throughout the season on Multiflora; growth well above the average. One of the best light-colored roses when grown on the Multiflora.

Gruss an Aachen. Poly. Delicate flesh-pink and yellow with deeper center, darker in bud-form, color quickly fades in hot weather, becoming almost white; perfume mild; fifty-eight blooms throughout the season; growth fair. A good low decorative variety, and fair for cutting.

Mrs. Herbert Hawksworth. T. Deeply zoned delicate ecru on milk-white, becoming silky creamy white; perfume mild; thirty-four blooms throughout the season; growth average. A fair rose for all purposes.

Antoine Rivoire. H.T. Flesh to cream-yellow-peach center, sometimes with lilac shading; perfume mild; twenty-seven blooms throughout the season;

*It should be noted that these forty-eight varieties are also recommended by Mr. Thomas as best for the "Second or Moderate Division."—EDITOR.

growth high and strong but lacking in bushiness. A distinct and beautiful rose for cutting, especially in the spring.

Mrs. Harold Brocklebank. H.T. Creamy white, center shaded buff, base of petals soft golden yellow, outer petals frequently tinted salmon-rose; perfume mild; thirty-eight blooms throughout the season; growth medium. Very good for cut-flowers.

Mlle. Simone Beaumez. H.T. Salmon-white, sometimes tinged with Japan yellow in center; perfume mild; forty-nine blooms throughout the season on Multiflora; growth tall and strong, but lacking in number of canes. Attains its greatest beauty in the spring, but a fair rose at all times.

La Tosca. H.T. Silvery pink with deeper center; perfume mild; fifty-seven blooms throughout the season; growth exceptionally strong and vigorous. One of the best roses for garden decoration.

PINK SECTION

Radiance. H.T. Light silver flesh to salmon-pink; perfume fair to strong; fifty-one blooms throughout the season on Multiflora; growth very strong. Stands supreme as the best pink rose in cultivation on account of its vigorous constitution.

Grossherzog Friederich. H.T. Carmine-rose-pink, with us light pink; perfume fair; fifty blooms throughout the season; growth very good. A splendid all-round rose.

Mme. Segond Weber. H.T. Rosy salmon; perfume mild; forty-nine blooms throughout the season on Multiflora; growth fair. Beautiful for cut-flowers.

Frau Margrethe Moller. H.T. Dark rose with clearer edges of petals; perfume fair; fifty-seven blooms throughout the season; growth medium; requires time to become established. A fair all-round rose.

Mme. Leon Pain. H.T. Light silvery salmon, center orange-salmon; perfume quite distinct; forty-one blooms throughout the season; growth above the average. Good for all purposes.

Lady Alice Stanley. H.T. Deep coral-rose on outside of petals, inside pale flesh; perfume mild to fair; thirty-three blooms throughout the season; growth fair. Especially good for cutting.

Mme. Maurice de Luze. H.T. Deep rose-pink, carmine center, reverse of petals paler in color; perfume exceptionally strong and enduring; forty-five blooms throughout the season on Multiflora; growth very good. Useful for cutting or decorative purposes.

Jonkheer J. L. Mock. H.T. Carmine changing to imperial pink; perfume fair in spring and fall, mild in summer; thirty-one blooms throughout the season on Multiflora; growth tall, but lacking in bushiness. A majestic cut-flower.

Mrs. George Shavoyer. H.T. Brilliant clear rose; perfume mild; thirty-one blooms throughout the season on two-year-old plants; growth well above the average. Very good for cutting.

Killarney. H.T. With us a soft clear light pink to light rose-pink; perfume quite distinct; forty-one blooms throughout the season; growth good. A good all-round rose, at its best in the spring. Very susceptible to mildew.

Caroline Testout. H.T. Satin rose with brighter center; perfume distinct; forty-two blooms throughout the season; growth good, but not of the best. A general favorite; grown to perfection in Portland, Ore.

La France. H.T. Bright pink; perfume very good; sixty-seven blooms throughout the season on Multiflora; growth well above the average. A rose worthy of cultivation if planted in poor ground, in a bed which drains readily, and if not fed.

RED SECTION

Comte G. de Rochemur. H.T. Fiery scarlet tinted satiny vermilion, with bright red center and rosy white edged petals; perfume above the average; sixty-seven blooms throughout the season; growth average. An especially desirable rose on account of its blooming qualities.

Robert Huey. H.T. Warm carmine-cerise, with wire edge of delicate pink; perfume mild; thirty blooms throughout the season; growth tall, but lacking in bushiness. The best hot-weather red rose; also notable for its extreme hardness.

Laurent Carle. H.T. Brilliant carmine; perfume fair to strong; thirty-one blooms throughout the season on Multiflora; growth fair. Excellent for cutting.

Robin Hood. H.T. Soft bright rosy scarlet, changing to bright scarlet-crimson as season advances; perfume above the average; forty-two blooms throughout the season on two-year-old plants; growth very good. Easily established and valuable for cut-flower purposes.

George C. Waud. H.T. Orange-vermilion; perfume quite marked; twenty-six blooms throughout the season on Multiflora; growth average. Useful as a cut-flower variety.

General MacArthur. H.T. Bright crimson; perfume good; thirty-five blooms throughout the season on Multiflora; growth above the average. A rose of all-round worth.

Cardinal. H.T. Cardinal-red; perfume very good; forty-eight blooms throughout the season on Multiflora; growth bushy, but not tall. Perfume and blooming qualities render it an attractive garden rose.

Lieutenant Chauré. H.T. Velvety crimson-red; perfume fair to strong; twenty-three blooms throughout the season on yearling plants; growth fair. Promises to be a good all-round rose.

Chateau de Clos Vougeot. H.T. Velvety scarlet to dark velvety crimson; perfume strong in the spring and fall, fair in summer; twenty-two blooms throughout the season on Multiflora; growth above the average. A rose worthy of cultivation for its unique and beautiful color.

Mrs. B. R. Cant. T. Deep rose on outer petals, inner petals soft silvery rose, suffused with buff at base; perfume mild; fifty blooms throughout the season on Multiflora; growth good. Stands out as the best of the red Teas; is good for decorative purposes and fair for cutting.

Gruss an Teplitz. H.T. Bright scarlet-crimson; perfume fair to strong; one hundred and seven blooms throughout the season when disbudded, if not disbudded will give approximately double this amount of bloom; growth perfect. The best tall decorative rose grown; may be used as a hedge if not cut back; or if grown on Multiflora will do well as a low everblooming climber.

Ecarlate. H.T. Brilliant scarlet; no perfume; one hundred and eight blooms throughout the season on Multiflora, ninety-three blooms on Brier, fifty-nine blooms on plants on their own roots; growth strong and bushy, but not exceptionally tall. A splendid decorative rose.

YELLOW SECTION

Duchess of Wellington. H.T. Intense saffron-yellow stained with rich crimson which, as the flower develops, becomes deep copper-saffron-yellow, with us somewhat lighter; slight spicy perfume; forty-seven blooms throughout the season; growth next to the largest. The best yellow rose in cultivation, having a wonderful record for many years.

Harry Kirk. T. Bright primrose to amber-yellow, with us light sulphur-

yellow; perfume slight, to some persons not pleasing; thirty-two blooms throughout the season; growth fine. An all-round rose, particularly notable on account of its hardiness for a yellow.

Mme. Edouard Herriot (*The Daily Mail Rose*). Per. Bud coral-red shaded with yellow on base, open flower rosy coral-red, lighter shadings are in salmon; mild perfume; thirty-two blooms throughout the season on Multiflora; growth average. Most distinct and remarkable color.

Natalie Bottner. H.T. Soft flesh to creamy yellow; fair perfume; forty blooms throughout the season; growth well above the average. A good cut-flower.

Mrs. Aaron Ward. H.T. Indian yellow, occasionally washed with salmon-rose; mild perfume; thirty-eight blooms throughout the season; growth quite bushy, but not tall. A very attractive and popular little rose; good for all purposes.

Senateur Mascuraud. H.T. Cream-yellow with light yolk of egg center; mild perfume; thirty-seven blooms throughout the season on Multiflora; growth barely average. Particularly useful for cutting.

Elli Hartmann. H.T. Old golden yellow; mild perfume; thirty-two blooms throughout the season; growth very good, tall and fairly bushy. A good cut-flower on account of its wonderful lasting qualities.

Mme. Melanie Soupert. H.T. Light cream to salmon-yellow, with light carmine shades; mild perfume; twenty-five blooms throughout the season on Multiflora; growth tall, but not bushy or uniform. One of the most beautiful roses grown; very large and with great substance.

Lady Pirrie. H.T. Deep coppery reddish salmon, inside of petals apricot-yellow—varies, lighter with us; mild perfume; fifty-six blooms throughout the season; growth very strong and bushy. Fair for decorative purposes; only good for cutting in cool weather.

Lady Plymouth. T. Deep ivory-cream, very faintly flushed; mild perfume; twenty-eight blooms throughout the season; growth bushy, with good number of canes, but not exceptionally tall. A good rose and an improvement in the well-known type of yellow Teas.

Mrs. A. R. Waddell. H.T. Rosy scarlet bud, opening reddish salmon, reverse of petals rosy scarlet; mild perfume; fifty-seven blooms throughout the season on Multiflora; growth above the average. An excellent decorative rose.

Chrissie MacKellar. H.T. Intense crimson-carmine crayonings on rich, deep, ochrey madder, becoming bright orangey pink as the bloom develops; perfume mild; sixty-five blooms throughout the season on two-year-old plants; growth splendid—high, strong and bushy, with many canes. Easily established and well adapted for decorative purposes.

For garden decoration, except in the extreme North, some of the Hybrid Teas give better results than any other class. The best of these in the four shades are: *Mme. Jules Bouche*, in the light; *Lady Ursula*, in the pink; *Gruss an Teplitz*, in the red; *Chrissie MacKellar*, in the yellow.

For climbing roses in the South, while the *Wichuraiana* and hardy Climbers will do well, their blooming season is so short compared with other roses which may be grown that they are not recommended.

There are so many well-known Climbing Teas, Noisettes, and Climbing Hybrid Teas which give good results and from which bloom may be expected during the entire growing season, that it is not considered advisable to recommend as yet some of the newer European introductions of supposedly hardy roses which are put out as being of everblooming habit.

Alister Stella Gray. N. Deep yellow with lighter edges; flowers in clusters.

Belle Lyonnaise. T. Canary-yellow.

Celine Forestier. N. Fairly free-flowering; old-gold.

Cloth of Gold. N. Sulphur-yellow, deeper center; large; double.

Gloire de Dijon. T. Buff, orange center; large and double. Perhaps the hardest of the Tea Climbers, but giving more bloom than the Hybrid Tea sports, a two-year-old plant having two dozen blooms the first week of November, 1916, in the latitude of Philadelphia. Should be budded on Multiflora for the best results.

Maréchal Niel. N. Bright rich golden yellow; large, full, fine form.

Mme. Alfred Carrière. H.N. Pure white; very free. A good pillar rose.

W. A. Richardson. N. Very deep orange-yellow; small; very showy and distinct.

Shower of Gold. H.W. Light cream to pale yellow; spring only. Foliage fair.

Ards Rover. Cl.H.P. Color is crimson shaded maroon; medium size; good form; blooms in the spring only; flowers come on short stems; has a fair petalage and is very fragrant.

Christine Wright. Cross between Caroline Testout and a Wichuraiana seedling. Placed with Hybrid Tea Climbers on account of the fact that its flowers are large and double, borne singly and in clusters; good form, with a perfect bud and good petalage; color is wild-rose pink; blooms best in spring. A few scattering flowers in autumn. A very satisfactory climbing rose. Foliage lasts well.

Climbing American Beauty. Cl.H.P. Rich rosy crimson; strong, vigorous growth. Gives remarkable amount of spring bloom, often with long stems; practically no summer or fall bloom. Loses foliage early.

Climbing Kaiserin Augusta Victoria. Cl.H.T. Primrose, of same form and color as the dwarf rose of the same name; very beautiful, but only gives scattering blooms throughout the season, although the best bloomer of the Hybrid Tea climbing sports.

Climbing Lady Ashtown. Cl.H.T. Salmon-pink, not quite so good form as the dwarf rose of the same name; gives fair amount of bloom in spring and an occasional bloom during summer and early autumn. Takes mildew more easily than most of this class.

Climbing Mme. Melanie Soupert. Cl.H.T. Salmon-yellow, suffused carmine; large, full, perfect form; has given more bloom than majority of the Climbing Hybrid Tea sports.

Climbing Mrs. W. J. Grant. Cl.H.T. Imperial pink; medium to large and good form; blooms fairly well in the spring with scattering blooms in the summer and autumn.

Climbing Richmond. Cl.H.T. Pure red-scarlet; bloom similar to the ordinary dwarf Richmond; of fair form only and blooming less freely in the autumn and summer than in the spring.

Dr. W. Van Fleet. H.W. Reported to be a cross between a Wichuraiana and Souv. du Président Carnot. It is a Hybrid Wichuraiana, but on account of the

form of the bloom is placed with the Hybrid Tea Climbers. Is more hardy than the Hybrid Tea sports and is of a soft flesh tint shading to delicate peach-pink; gives a bloom on somewhat longer stem than the average Climber; blooms well in the spring and scattering blooms thereafter. Foliage very good and lasts quite well.

Mary Lovett. H.W. In this Dr. Van Fleet has brought out another Wichuraiana Hybrid, a cross between a seedling Wichuraiana and Kaiserin Augusta Victoria, and termed a "white Dr. Van Fleet." This rose has done well during 1916 and is strongly recommended. Loses foliage early.

Mme. Hector Leuillot. H.T. Golden yellow, tinted with carmine in the center; large; full; gives scattering blooms throughout the entire season; most attractive color.

Reine Marie Henriette (Madame Berard [of Gloire de Dijon] × General Jacqueminot). H.T. Deep cherry-red; blooms prolifically in the spring, the flowers being of good form and petalage, and fragrant; it occasionally gives blooms in summer and autumn.

Climbing Clothilde Soupert. Cl. Poly. This is a Climbing Polyantha which has done well for some growers. The blooms are double, the color silver-flesh to shell-pink.

In addition to these, the Banksian and Cherokee roses are very successful in this section, and Pink Cherokee and Ramona are reported to give scattering blooms throughout a long period.

Second or Moderate Division

In this section the list of forty-eight roses recommended for the South are by all odds the best for all-round use and are preferable to the Hybrid Perpetuals on account of the longer blooming season, although the Hybrid Perpetuals given for the North may be grown for spring bloom. The exception to this is that, in the Pacific Northwest, the Hybrid Perpetuals give a long period of bloom and may be grown to advantage. It must be realized, however, that in the northern part and in especially exposed localities these Hybrid Teas are not so hardy as the Hybrid Perpetuals, but in such districts, with careful hilling up, they may be cultivated successfully.

In this section, for climbing roses, the Noisettes, Climbing Teas, and Hybrid Teas recommended for the South winterkill except in the extreme southern part—in fact, much north of Washington these require special winter protection; therefore, for this area the Hybrid Wichuraianas and Hybrid Polyantha Climbers are recommended, as the new climbing introductions have not yet given sufficiently satisfactory results to be included.

American Pillar. H.P. Large clusters; dark pink with a white center and yellow stamens; very large; single. Similar to Evergreen Gem. Foliage lasts quite well.

Aviateur Bleriot. H.W. Clusters; saffron-yellow, center golden yellow. Foliage lasts quite well.

Dorothy Perkins. H.W. Trusses; single; light pink. Foliage lost quite early.

Eliza Robichon. H.W. Trusses; single; rose, shaded old-gold. Especially good for covering banks. Holds foliage well.

Evangeline. H.W. Single; white, tips of petals carmine-pink.

Excelsa. H.W. Trusses; double; brilliant scarlet. A Crimson Rambler with good foliage which lasts especially well. Bloom of Troubadour almost identical with Excelsa. The best red climber of the class.

Gardenia. H.W. Clusters; bright yellow, paler as flowers expand; very pretty in bud-form. Foliage very good and lasts well. Do not confound with Gardenia of Soupert & Notting, which is inferior.

Goldfinch. H.Poly. Pale orange, changing to white; semi-double; trusses. Reported stronger in the extreme North than the Hybrid Wichuraianas.

Hiawatha. H.Poly. Single; crimson, center pure white to cream. Loses foliage early.

Jean Girin. H.W. Description given by Admiral Ward, as grown on Long Island. Absolutely hardy as a climber; almost the same as Dorothy Perkins. In the fall has a second blooming period, when it gives approximately half the number of blooms produced in the spring. Foliage lasts quite well.

Silver Moon. Said to be a cross between *R. Wichuraiana* × *Cherokee*. Extra large; single; silver-white with golden yellow stamens; of remarkably strong growth; very distinct. Foliage lasts well.

Tausendschön. H.Poly. Soft pink; large clusters. Foliage lasts fairly well. Reported hardier in the North than the Hybrid Wichuraianas.

Veilchenblau. H.Poly. Lilac changing to amethyst and steel-blue; medium size; produced in large clusters. Lower foliage lost early.

Third or Northern Division

The best roses for cut-flowers for this section are the Hybrid Perpetuals. There is no yellow rose of merit of this class, and therefore one of the Hybrid Austrian Briers (Pernetianas) is included in the list, as it is hardier than any of the yellow Teas or Hybrid Teas, and is of fair enough form for cut-flower purposes.

Baroness Rothschild. Pale rose.

Captain Hayward. Scarlet-crimson; perfumed.

Fisher Holmes. Deep velvety crimson.

Frau Karl Druschki. Snow-white, sometimes lightest pink blush at center.

Geoffrey Henslow. Orange-crimson; classed as a Hybrid Tea, but with Hybrid Perpetual characteristics; sweet.

George Arends. Delicate rose; scented.

Gloire de Chedane Guinoisseau. Bright vermilion-red, shaded velvet; very large.

Gloire Lyonnaise. Very pale lemon; wonderful foliage, and except in the extreme North may be grown as a pillar or hedge rose; small to medium-sized

flowers; never develops seed-pods; classed as a Hybrid Tea, but with Hybrid Perpetual characteristics; tea fragrance.

Hon. Ina Bingham. Silver-pink; semi-double; classed as a Hybrid Tea, but with Hybrid Perpetual characteristics.

J. B. Clark. Deep scarlet, shaded blackish crimson; classed as a Hybrid Tea, but with Hybrid Perpetual characteristics; fragrant.

Madame Gabriel Luizet. Light silvery pink.

Margaret Dickson. White, pale flesh center.

Merveille de Lyon. Syn., White Baroness. White, center slightly peach.

Mrs. George Dickson. Delicate soft pink; fragrant. Do not confound with George Dickson.

Mrs. John Laing. Soft pink; fragrant.

Mrs. R. G. Sharman-Crawford. Deep rosy pink, outer petals shaded with pale flesh.

Oscar Cordel. Bright carmine; sweet.

Paul Neyron. Deep rose.

Prince Camille de Rohan. Deepest velvety crimson; this variety has rather a weak stem; fragrant.

Suzanne Marie Rodocanachi. Catalogued as soft pink—in this country more of a cerise—very much the same shade as Dorothy Page Roberts; fragrant.

Ulrich Brunner. Cherry-crimson; sweet.

Urania. Bright crimson.

Xavier Olibo. Very dark crimson; a shy bloomer.

Soleil d'Or. Per. Orange-yellow to reddish gold, shaded with nasturtium-red.

The best roses for garden decoration in the north are the Rugosas and their hybrids, which give bloom fairly well throughout the season. These are also good farther south for massing and hedges.

Rosa rugosa alba. Single; white.

Rosa rugosa rosea. Single; pink.

Rosa rugosa rubra. Single; red.

Atropurpurea. Blackish crimson, passing to maroon-crimson.

Blanc Double de Coubert. Double; paper-white.

Conrad Ferdinand Meyer. Clear silvery rose, especially good in bud-form.

Dolly Varden. Light apricot-pink with a yellow base; blooms well but is not of as large growth as the other varieties mentioned.

Hansa. Double; reddish violet.

Mme. Charles Worth. Semi-double; rosy carmine.

Mrs. Anthony Waterer. Semi-double; deep crimson.

For climbing roses in this section the same varieties which are recommended for the second division are the best, although these may require some protection in the extreme north.

New Introductions

While it is always a gamble to order varieties which have not been thoroughly tested for at least two years, there are a few of

the new roses not included in the foregoing lists which are worthy of mention. It will be understood that these are the best of a large number of new roses which have been tried out, and while they cannot be thoroughly recommended they are nevertheless promising. Of the great army of new introductions which are constantly being brought out here and abroad there is only a very small percentage which are worth cultivating in this country, and the novelties of the past three years have been no exception to this rule.

Los Angeles. H.T. Flame-pink, shaded to yellow, toned with salmon, much on the order of Lyon rose. Gives promise of being a good bedding variety with some value for cutting. Reported to be a strong grower and a good bloomer.

Mme. Marcel Delanney. H.T. Pale pink or soft rose, shaded with hydrangea-pink; good growth, good foliage and stem; fine perfume. Not a profuse bloomer but a remarkable rose for cut blooms and with a possibility of being an all-round variety.

Melanie Niedieck. H.T. Vivid lemon-yellow; shows remarkably good growth for the first year; foliage good and holds well; medium size, especially attractive in bud-form; color fades quickly. Good bloomer, but only fair for cut-flower purposes.

National Emblem. H.T. Dark crimson, overlaid velvety crimson shading to vermilion toward the edges. A rose of beautiful and distinct color and fine form for a red; good foliage and fair growth for the first year, combined with hardness.

Red Radiance. H.T. A sport from the well-known Pink Radiance. Attractive in color. Not yet thoroughly tested, but from reports a rose worthy of cultivation.

Tipperary. H.T. A nice light yellow; medium size; good foliage; fair perfume; shows fair to strong growth; fine bloomer.

Titania. C. Coppery crimson in the bud, changing as the flowers open to deep salmon-red, the base of the petals being shaded with clear yellow. Very much the color of Daily Mail, although a trifle lighter, having better growth the first year, and more petals. Has been perfectly hardy, and is going to be a fine bloomer, with plenty of fall bloom. Medium to fair size; only a trace of perfume. Promises to be a fine bedding variety.

The Editor will welcome detailed notes on the merits, demerits, or peculiarities of garden roses, mailed to him at Harrisburg, Pa.

Selections from Recent Garden Roses

By AARON WARD, Roslyn, N. Y.

EDITOR'S NOTE.—Among the few rose-gardens in America that deserve fame is that of Admiral Ward. To a lifelong love for the rose he adds the advantage of acquaintance with and knowledge of the great European hybridizers, from whom he receives their productions at the earliest moment. His judgment of varieties is founded upon discrimination and knowledge.

THE varieties named below are grown in my garden on the north shore of Long Island. Soil, sandy loam and clay.

For a number of years it has been the practice here to make an annual comparative list of the varieties received during that year for the first time, usually four to six plants of each sort. They may have been just put on the market or may have originated earlier. Some have been secured in advance of general distribution. They are recorded, however, as a class for the year in which planted, which indicates at a glance how long they have been grown here. Thirty-six months after planting they are either increased in numbers, tolerated, or evicted.

The varieties named are Hybrid Teas, except where otherwise noted. They are all grown as dwarfs (bush roses), and the blooms are mostly double. All are autumnal bloomers, and are budded stock, usually on seedling brier.

An attempt is made to give an idea of the style of growth as well as color. This is of importance in forming groups or beds.

1910

Friedrichsruh. (Turke.) Deep red; dwarf, bushy.
General MacArthur. (Hill.) Scarlet-crimson; tall, bushy.
George C. Waud. (Alex. Dickson.) Scarlet-orange; moderate, bushy.
Lieutenant Chaure. (Pernet-Ducher.) Crimson; tall, bushy.
Mme. Edouard Herriot. (Pernet-Ducher.) Per. Terra-cotta; tall, spare.
Mme. Segond Weber. (Souper & Notting.) Rosy salmon; low, bushy.
Mrs. Harold Brocklebank. (Alex. Dickson.) Creamy white; tall, spare.
Souv. de Gustav Prat. (Pernet-Ducher.) Sulphur-yellow; moderate, bushy.
Willowmere. (Pernet-Ducher.) Per. Shrimp-pink; tall, spare.
 Selected from a total of fifty-six varieties.

1911

Alice de Rothschild. (Alex. Dickson.) T. Citron-yellow; moderate, bushy.
Bertha Gaulis. (Bernaix.) Rosy pink; tall, spare.
Herzog von Anhalt. (Welter.) Salmon-rose; tall, bushy.
Jonkheer J. L. Mock. (Leenders.) Deep rose; tall, bushy.
Mme. Antoine Mari. (Mari.) T. Blush-white; moderate, bushy.
Radiance. (Cook.) Carmine-rose; tall, bushy.
 Selected from a total of thirty-seven varieties.

1912

New plants almost exclusively Climbers.

1913

Admiral Ward. (Pernet-Ducher.) Crimson; tall, bushy.
Constance. (Pernet-Ducher.) Per. Golden yellow; moderate, spare.
Miss Cynthia Forde. (Hugh Dickson.) Rose-pink; tall, bushy.
General-Superior Arnold Janssen. (Leenders.) Carmine; tall, spare.
Lady Alice Stanley. (McGredy.) Silvery pink; moderate, spare.
Mme. Colette Martinet. (Pernet-Ducher.) Deep yellow; moderate, bushy.
Mrs. Chas. Hunter. (W. Paul.) Rose-pink; tall, bushy.
Ophelia. (W. Paul.) Salmon-flesh; moderate, bushy.
 Selected from a total of thirty-four varieties.

The following names are taken from varieties under observation since the autumn of 1914. They are not recommended or vouched for in any way, except to those who are willing to take a chance on something apparently worth notice. It is reasonably certain that a number of these names will disappear and that others may be added in the final analysis.

1914

Duchess of Wellington. (Alex. Dickson.) Saffron-yellow; moderate, bushy.
Edith Part. (McGredy.) Red and yellow; moderate, bushy.
Grand Duchess Adelaide. (Soupert & Notting.) Per. Yellow; moderate, spare.
Lady Greenall. (Alex. Dickson.) Saffron-orange; tall, spare.
Lady Downe. (W. Paul.) Buff; tall, bushy.
Mrs. F. W. Vanderbilt. (McGredy.) Per. Coppery rose; moderate, bushy.
Primrose. (Soupert & Notting.) Creamy yellow; moderate, bushy.
 Total number of varieties planted, thirty-eight.

1915

Bertha Kiese. (Kiese.) Light yellow; moderate, bushy.
Countess Clanwilliam. (Hugh Dickson.) Peach-pink; moderate, bushy.
E. M. Burnett. (McGredy.) Pink; moderate, bushy.
**Franklin.* (Pernet-Ducher.) Per. Coppery rose; moderate, bushy.
Golden Emblem. (McGredy.) Per. Golden yellow; moderate, spare.
Hoosier Beauty. (Dorner.) Crimson; moderate, spare.
Mrs. Wemyss Quin. (Alex. Dickson.) Per. Lemon-chrome; moderate, spare.
National Emblem. (McGredy.) Dark crimson; moderate, bushy.
**Raymond.* (Pernet-Ducher.) Per. Coppery red; moderate, bushy.
Souv. de E. Guillard. (Chambard.) Saffron; moderate, bushy.
Souv. de M. Mulnard. (Dubreuil.) Salmon-pink; moderate, bushy.
 Total number of varieties planted, twenty-seven.

1916

Crimson Champion. (Cook.) Crimson; moderate, bushy.
Grange Colombe. (Guillot.) Creamy white; tall, bushy.
Red Radiance. (Gude.) Red; tall, bushy.
Red Radiance. (A. N. Pierson.) Red; tall, bushy.
 Total number of varieties planted (spring), twelve.

*Under observation as unnamed seedlings since 1913. Permanent selections.



PLATE III. New Hybrid Tea rose, MRS. HENRY WINNETT
(See page 39)

Rose Bloom Records at Egandale

By W. C. EGAN, Highland Park, Illinois

EDITOR'S NOTE.—One of the most important gardens in America is that of Mr. W. C. Egan, on the shores of Lake Michigan. The tests of hardiness and blooming quality from this great garden cannot but be of great importance to all in similar climates. Egandale is cold and windswept in winter, but a moving feast of loveliness all of the growing season.

LAST year I concluded to make a test here of Hybrid Teas, as to their blooming qualities as "bedders," and also to test their hardiness and suitability to this climate. I planted forty-two varieties, the dormant plants being set out March 21, 1915. They had a good "rose summer," rather cool and moist, to get started in, and gave plenty of blooms. They all wintered well under a hilled-up soil protection.

I took no count in the summer of 1915, wanting to get them well established before I called upon them to demonstrate their abilities. This year, a very unfavorable one for roses, I kept an account of the number of blooms produced. As I was testing for bedding qualities, I did not disbud.

The subjoined account of the results will be interesting to other amateurs who feel, as I do, that a rose must be considered somewhat in relation to its freedom of bloom.

As may be noticed, I divided the count into two sections, one being the number of blooms produced prior to August 1, and the other afterward.

It seems singular to find the popular budding rose, Caroline Testout, No. 17 on the list. The season may have something to do with it.

The following is a list of roses that held their flowers well up and fairly well up during heavy rains:

Held well up.—Mme. Jules Bouche, Mme. Jenny Guillemot, Jonkheer J. L. Mock, Gustav Grünerwald, Caroline Testout, Lady Ursula, Killarney, Grossherzog Friederich, Mrs. F. W. Vanderbilt, Duchess of Westminster, Mrs. Wakefield Christie-Miller, Radiance, Ecarlate, and Pharisæer.

Held only fairly well up.—Mrs. George Shawyer, Antoine Rivoire, Lady Alice Stanley, Mme. Edouard Herriot, Mrs. Aaron Ward, and La Tosca.

TEST AS TO BEDDING QUALITIES OF HYBRID TEA ROSES

Count of blooms for season of 1916 at Egandale on Hybrid Tea roses, second year planted, three plants each; no disbudding. The summer was unusually hot and trying.

Name of variety	Average blooms prior to August 1	Average blooms after August 1	Average blooms per plant for the whole season
1. Ecarlate	43 $\frac{1}{3}$	75	118 $\frac{1}{3}$
2. Killarney	27	25 $\frac{2}{3}$	52 $\frac{2}{3}$
3. La Tosca	26 $\frac{2}{3}$	18 $\frac{1}{3}$	45
4. Grossherzog Friederich . .	19 $\frac{2}{3}$	25	44 $\frac{2}{3}$
5. Radianc	26	16	42
6. Lady Ashtown (two plants)	17	17 $\frac{1}{2}$	34 $\frac{1}{2}$
7. Ophelia	16 $\frac{1}{3}$	18 $\frac{1}{3}$	34 $\frac{2}{3}$
8. Majestic	18	15	33
9. Mrs. A. R. Waddell . . .	16	15 $\frac{2}{3}$	31 $\frac{2}{3}$
10. Mrs. Aaron Ward	14	17 $\frac{1}{3}$	31 $\frac{1}{3}$
11. Lady Ursula	18 $\frac{1}{3}$	12	30 $\frac{1}{3}$
12. Duchess of Wellington . .	8	22 $\frac{1}{3}$	30 $\frac{1}{3}$
13. Florence Pemberton . . .	10 $\frac{2}{3}$	19 $\frac{1}{3}$	30
14. Pharisaer	15 $\frac{1}{3}$	13	28 $\frac{1}{3}$
15. Viscountess Folkestone . .	13	13 $\frac{1}{3}$	26 $\frac{1}{3}$
16. Souv. de Gustav Prat . . .	10 $\frac{2}{3}$	15	25 $\frac{2}{3}$
17. Caroline Testout	14 $\frac{2}{3}$	10	24 $\frac{2}{3}$
18. Lady Alice Stanley	13 $\frac{1}{3}$	10 $\frac{1}{3}$	23 $\frac{2}{3}$
19. Mme. Leon Pain	9 $\frac{1}{3}$	14	23 $\frac{1}{3}$
20. Prince de Bulgarie	12	11 $\frac{1}{3}$	23 $\frac{1}{3}$
21. Gustav Grünerwald	9	14	23
22. General MacArthur	8 $\frac{1}{3}$	13 $\frac{2}{3}$	22
23. Lieutenant Chaure	10 $\frac{2}{3}$	11	21 $\frac{2}{3}$
24. Willowmere	14 $\frac{2}{3}$	7	21 $\frac{2}{3}$
25. Lady Pirrie	10	10 $\frac{1}{3}$	20 $\frac{1}{3}$
26. Duchess of Westminster . .	10 $\frac{1}{3}$	9 $\frac{1}{3}$	19 $\frac{2}{3}$
27. Laurent Carle	8 $\frac{2}{3}$	10 $\frac{2}{3}$	19 $\frac{1}{3}$
28. Mme. Ravary	8 $\frac{1}{3}$	9 $\frac{2}{3}$	18
29. Farbenkönigin	10	7 $\frac{1}{3}$	17 $\frac{1}{3}$
30. Antoine Rivoire	12	4 $\frac{2}{3}$	16 $\frac{2}{3}$
31. Dean Hole (first year) . . .	4	12 $\frac{2}{3}$	16 $\frac{2}{3}$
32. Mme. Jules Bouche	6 $\frac{2}{3}$	9 $\frac{2}{3}$	16 $\frac{1}{3}$
33. Earl of Warwick	7	8 $\frac{2}{3}$	15 $\frac{2}{3}$
34. Mme. Melanie Soupert . . .	9	5 $\frac{2}{3}$	14 $\frac{2}{3}$
35. Mrs. Wakefield Christie- Miller	9	5	14
36. Mrs. F. W. Vanderbilt . . .	6	7 $\frac{2}{3}$	13 $\frac{2}{3}$
37. Jonkheer J. L. Mock (buds come bull-headed)	4 $\frac{2}{3}$	8 $\frac{1}{3}$	13
38. Mme. Jenny Guillemot . . .	6 $\frac{1}{3}$	6 $\frac{1}{3}$	12 $\frac{2}{3}$
39. Chateau de Clos Vougeot (weak grower)	6	5 $\frac{2}{3}$	11 $\frac{2}{3}$
40. Mme. Edmond Rostand . . .	5 $\frac{2}{3}$	5 $\frac{1}{3}$	11
41. Mrs. George Shawyer	4	6 $\frac{2}{3}$	10 $\frac{2}{3}$
42. Louise C. Breslau	7	2 $\frac{2}{3}$	9 $\frac{2}{3}$

E. G. Hill's Forthcoming Roses

By SARAH A. HILL, Richmond, Ind.

EDITOR'S NOTE.—What the veteran rose-grower of Indiana does with his half-century's experience is always interesting and important. Miss Hill here gives us a look into the immediate future. A note received just as the Annual is going to press, from Robert Pyle, a most capable rose-observer, indicates his belief that these new Hill roses are of great value and importance.

MR. HILL has continued actively his work in rose hybridization, of which some report was printed in the 1916 American Rose Annual.

From the 1914 crosses there were germinated over 2,500 seeds. Each little plant was given special culture, being planted in a bench where it received the same care as that required by the most important forcing varieties.

In 1915 the first weeding out of the seedlings occurred, and by 1916 the 2,500 seedlings had been reduced to about 800. These were tested in blocks of five, receiving the most rigid attention and critical scrutiny.

By the opening of 1917, the seedlings have been reduced to some fifteen sorts which Mr. Hill considers worth while going farther with.

Of this fifteen several have been selected, named and registered, and propagation is proceeding with the idea of later dissemination.

No. 392, which has been registered as Columbia, is one of the two roses to be sent out in 1918. It has Ophelia blood crossed with Mrs. Shawyer. The color of the bud is rose-pink, and it opens into a very large, full flower which deepens and brightens in color as the bloom expands. The plant grows freely, and the young growth is quickly produced. The stems are long and stiff, and the ample bronzy green foliage is itself of great beauty. It will thus be noted that this rose gives great promise as a forcing variety.

No. 128 has been registered as Double Ophelia, and the name well describes the rose. It has fifty or more petals of pure pink, with golden base, and a bright pink center. It is of perfect form, very fragrant, and has fine lasting qualities. Ophelia was one of its parents, the cross being with an unnamed seedling variety. It will be ready for dissemination in 1918.

No. 427 is registered as Rose Premier. It is the result of a cross between Ophelia and Mrs. Charles Russell. The deep rose-colored flower is of the largest size, of perfect form, and of notable fragrance. These great flowers are borne on long, erect stems, furnished with foliage of large size and fine appearance. America, indeed, is as fine in leafage as American Beauty. In company with the two seedlings above described, it is full enough to be of imposing form, and we have found it to keep well, while opening readily on the forcing-bench. America will be ready for the rose world in 1919.

No. 1238 has been named Mary Hill. It is a cross between Ophelia and Sunburst. The flowers of mammoth size are cream, with orange center, and while the rose is no fuller than Sunburst, it holds its form well. Most remarkably effective not only because of its individual color, but because the calyx and sepals are striking in color and beauty. These flowers are freely produced on strong, erect stems, graced with broad, heavy and dark green foliage. It is hoped to have Mary Hill ready to distribute to the world at large in 1919.

Others of the fifteen sorts are full of promise and will be reported upon later. It may be observed that all of these roses are selected primarily from the forcing or commercial cut-flower standpoint, but it is by no means improbable that several of them may also prove as fine for outdoor use as General MacArthur.

The New American Roses of 1917

By THE EDITOR

IN no sense is this heading intended to suggest an inclusive treatment of present-day American achievements in rose-growing. It does include the roses which are illustrated in two of the colored plates and three of the sepia plates found within the covers of this book.

These "Made in America Roses" would be encouraging if they were not particularly excellent, as emphasizing the trend toward American production. Careful and capable American growers are working with devotion and thought toward bring-

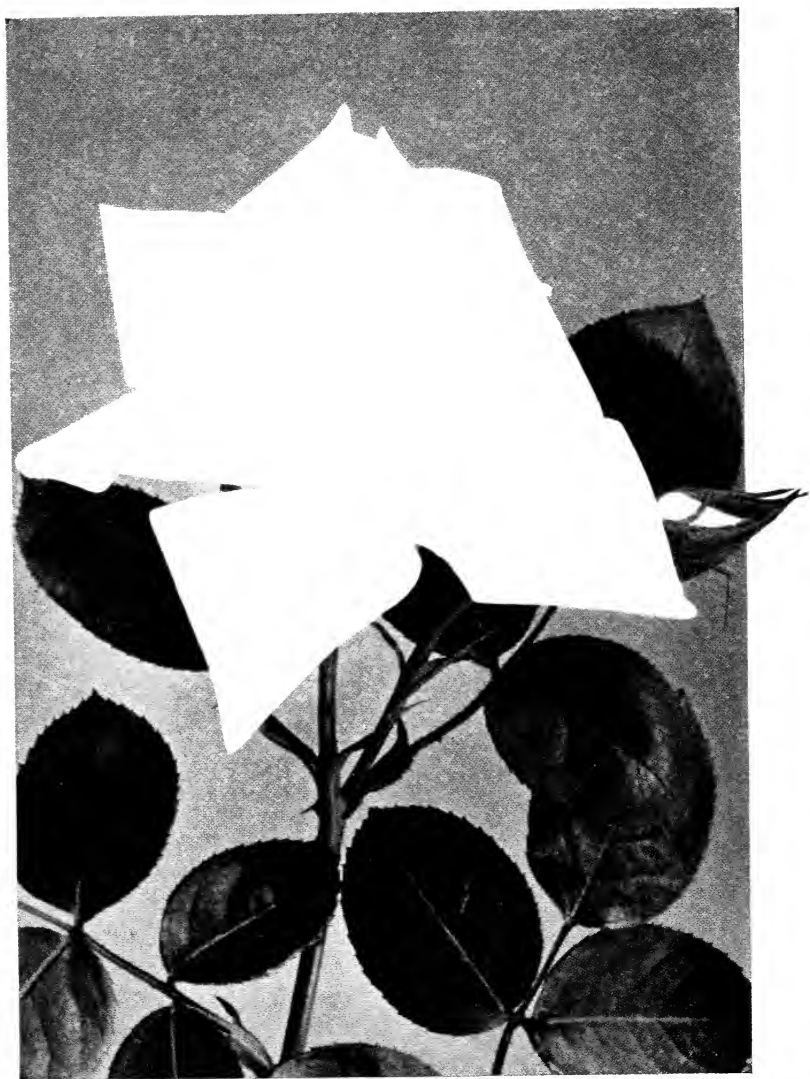


PLATE IV. Fred H. Howard's new American rose, LOS ANGELES
Three-fourths natural size

ing into existence varieties not handicapped by the more genial climate in which the foreign roses originate. While it is true that much of the work being done is toward the production of greenhouse roses, or rather of roses used primarily for cut-flower blooming in greenhouses, it is yet true that many of those previously produced under similar conditions in the United States have eventually proved to be good garden roses. It is believed, therefore, that the whole effort is an encouraging one, in its endeavor to provide better roses for America.

Other articles detail the work of hybridizers not discussed in the paragraphs immediately succeeding. The Editor has written wholly concerning the illustrated roses.

JOHN COOK'S UNNAMED SEEDLING

When, in October of 1916, the Editor called upon that veteran Baltimore rose-grower whose fine achievements have been in evidence in the production of such roses as Radiance, Panama, My Maryland, Francis Scott Key, and others, he was taken to a hillside greenhouse without any statement as to what was to be seen. Mr. Cook courteously held aside the door of the greenhouse, and the writer entered. Instantly his eyes were attracted by a long bench of blooming roses, the sight of which caused him to quicken his steps and to say, "Why, what is this? It looks like a glorified La France!" With a slow smile, Mr. Cook said, "That is what we call it as far as we have gone, and this rose is what I brought you to see."

It is the "glorified La France," then, which is now discussed. A volume would not add to the compact description which this provisional title affords. In an emphatic sense the rose is "great," as that adjective is applied to indicate an upstanding and notable character, both in stem, in foliage, and in flower.

Mr. Cook had counted petals repeatedly, and his statement may be accepted as authoritative when he says that the rose averages ninety-two petals. It is, therefore, an exceedingly full and double rose, resembling in that respect certain of the newer productions of E. G. Hill, another half-century American rose-making veteran, who has also used Mrs. Charles Russell in his breeding. (Mr. Cook's new rose is a cross between Frau Karl Druschki and Mrs. Charles Russell.)

Fragrance was not expected in a rose of the parentage of Mr. Cook's seedling, but nevertheless it is there, and singularly like *La France*.

This new rose has not yet been grown outdoors, and while it may fail as a garden rose, its Druschki blood would indicate to the contrary. Flowers have been exhibited, and, as Mr. Cook has put it, they caused embarrassment as shown in the window of his Baltimore store, because of the insistent demand for them which could not be met.

Just a word as to this fine old veteran rose-grower himself. The visitor to John Cook is impressed by the fact that he is much more than a rose-grower. About his hospitable home are grouped representative trees, both deciduous and coniferous, which Mr. Cook himself has reared, and under the shade of which he now enjoys the singular and delightful advantage which a consistent tree-planter receives. He is interested in everything that grows, and the rose is not the only flower which has benefited by his hybridizing touch.

It is quite proper to announce that the "glorified *La France*," yet unnamed, is not now in commerce and that plants are not now available.

LOS ANGELES

It was early in 1916 that mail contact with Mr. Fred H. Howard, of Los Angeles, California, brought to the Editor's garden certain plants labeled "Seedling 101." Admiring the vigor, both of the plant and of the stock on which it was budded, these roses were early put into the ground. They started with unreasonable promptness, grew with unusual vigor, and bloomed both earlier and stronger than it was right to expect newly transplanted material to do. The flowers were most attractive and different. Though the coloring is similar to several of the *Pernetiana* roses, it is deeper, and the vigor and foliage of Los Angeles commend it as utterly different.

The color picture printed in this Annual was produced from blooms grown in the writer's garden on these newly transplanted plants. There is little reason to doubt that Mr. Howard has provided us with an American rose of great value for outdoor use, and a very distinct advance on any foreign introductions.

MRS. HENRY WINNETT

The rose knows no international boundary line, wherefore this first production of a capable Canadian hybridizer is as truly and wholly American as if it grew farther south.

The Editor has not himself seen in bloom Mr. John H. Dunlop's new rose, wherefore he quotes from the description of Wallace R. Pierson, a most particular and well-informed American rose-grower who visited the Dunlop place at Richmond Hill, Ontario, in November, 1916, to see and study the new production. He writes that Mrs. Henry Winnett is a seedling from Mrs. George Shawyer and Mrs. Charles Russell, so that it certainly holds hands across the sea as between parentage English and American. Its foliage is characteristic of Mrs. Shawyer, and the observer reports it as a "big, strong, rank-growing rose, in color almost as dark as Hadley." He adds, "Though Mr. Dunlop has registered the rose as 'brighter than Richmond,' it is not only brighter but darker than that variety. The color undoubtedly comes from its grandparents, and through Mrs. Charles Russell from the fine General MacArthur strain. Dunlop's rose has the fragrance of Hadley, though not quite so pronounced. It gives every indication of being a first-class forcing rose, and judging from the parentage and growth characteristics it should make a good garden rose."

It is only proper for the Editor to explain to the unacquainted amateur that the references above make plain the fact that Mrs. Henry Winnett is a red rose, and of a most attractive character. It is not to be offered for public purchase until some time in 1918.

ALIDA LOVETT

Dr. W. Van Fleet is responsible for the production of many of the best American-bred climbing roses. He is also to be credited with an improved form of Crimson Rambler, in the rose known as Philadelphia, and with several exceedingly good *Rugosa* hybrids, chief among which is Sir Thomas Lipton.

Recently Dr. Van Fleet has put into commerce three roses included in the Lovett family, of which Alida Lovett is the one illustrated. A hybrid between *Rosa Wichuraiana* and a Hybrid Perpetual rose as pollen parent, it is of vigorous climbing habit

and proved hardiness, having been under observation since 1909. The habit of growth and form of flower resemble Dr. W. Van Fleet, but the color is better, being described as "a lively bright shell-pink, with shadings of rich sulphur at base of petals."

HOOPES' "NO. 48"

It was that fine old botanist and nurseryman, Josiah Hoopes, who many years before his death started James A. Farrell, his capable assistant in the great nursery at West Chester, toward proper rose hybridization and breeding. The result of this work ought to add to the fame both of Mr. Hoopes and Mr. Farrell, for three better climbing roses than Christine Wright, Climbing American Beauty, and Purity have not yet been produced.

The same work has proceeded, and Hoopes' "No. 48" is now under close observation and trial, with a favorable probability attending it.

The picture presented in Plate VI, facing page 48, tells the story adequately. The Editor has not yet seen this rose, but he has the authority of Mr. Wilmer Hoopes, of the firm of Hoopes, Bro. & Thomas Co., for the statement that it is a beautiful light pink in color, while the photograph shows that it has the charming and distinct habit of bloom and form of flower characteristic of Climbing American Beauty. Like that variety, it can readily be so trained as to make of it a large bush effect.

It should be understood that the Editor of the American Rose Annual is in no sense interested in the promotion of any of these roses, nor can he more than pass on the consideration of them to interested rose-growers, with his own belief in their general value. If we here in the United States could produce twelve good roses out of every dozen new seedlings, we would be excelling the performance of our friends across the sea by about two thousand per cent. That more than half of the recently introduced American-bred roses have proved substantially worth while in this climate is an evidence of the value of the work being done, and it is somewhat on this basis that these roses are now mentioned in this book of record.



PLATE V. New Hybrid Wichuraiana rose, ALIDA LOVETT
(See page 39)

On the 1916 Rose Firing-Line

By W. VAN FLEET

Department of Agriculture, Washington, D. C.

EDITOR'S NOTE.—Among several thoughtful articles upon rose-breeding printed in the 1916 Rose Annual, Dr. Van Fleet's presentation on "Possibilities in the Production of American Garden Roses" was particularly interesting and important. Several careful breeders of roses have written of their conception of its valuable suggestions, and it was undoubtedly one of the most important record statements on the rose ever presented. The paper which follows brings the reader up to date with Dr. Van Fleet's progress.

It will be remembered that Dr. Van Fleet has produced many of our best hardy climbing roses. One just being introduced, "Alida Lovett," is pictured on Plate V, facing page 40.

THE past season did not prove especially favorable for rose pollination among hardy roses in the open, but a fair proportion of hand-fertilized seeds was secured from most of the species and varieties worked with. In March many pollinations of the Cherokee rose, *Rosa laevigata*, in its typical form and in its pink-flowered varieties Anemone and Ramona, of *R. Banksia*, *R. xanthina*, *R. rugosa*, *R. multiflora*, in newly imported types, and a few other species, with a considerable variety of Tea and Hybrid Tea roses, were made at the United States Plant Introduction Garden, Chico, Cal., with very flattering immediate results; but early drought unfavorably affected the development of the hips and only a small proportion came to maturity.

Some sound seeds of most of the crosses were secured, however, *R. Banksia* giving the smallest yield, and a few have already germinated. Only double-flowered varieties of the Banksia rose are available at Chico, and they are rarely fruitful. It is to be hoped that the primitive single forms can be secured for breeding purposes, but they appear exceedingly rare in cultivation.

The typical Cherokee yielded a satisfactory crop, considering the adverse conditions. No fruits matured in the pink varieties, though the pollen of Anemone appeared effectual on other species.

During May and June, though much hampered by rain, very numerous cross-pollinations were made at Glenn Dale, Md., between new hardy Chinese species, including *R. setip-*

oda, *R. Moyesii*, and *R. sertata*, and promising garden and bedding varieties from the American Rose Society's test-garden at Arlington, Va. The fruits of the Chinese species, with few exceptions, were unfavorably affected by the great humidity of the late summer months, but pollen-crosses of all the new species were secured. More than the usual number of pollinations of the older exotic and native species were made, with very fair success in the outcome. Some very striking hybrids of *R. Wichuraiana*, *R. rugosa*, *R. Soulieana*, and *R. pomifera*, the results of crosses made in 1913-14, were bloomed, and propagations made from the most promising for future trials.

Among second-generation crosses of *R. Soulieana* and Hybrid Teas there appeared a dwarf, compact plant bearing a profusion of double, fragrant blooms, white with creamy centers, throughout the entire growing season. This newcomer is of the general character of *R. Pissardii* (*R. moschata* var. *nas-tarana*), favorably known in European rose-gardens, but appears to be a more profuse bloomer as grown here. The original form of *R. Soulieana*, imported about 1904, winter-kills about Washington, but seedlings are quite hardy. A few hybrids with varieties of *R. gallica* have handsome double blooms, white or clear pink in color. A plant of the type, maintained in a greenhouse, makes tremendous growth but does not bloom, and the same is to be said of *R. Leschenaultii*, a native of northern India, which throws canes twenty feet long but produces no blooms. This latter is attractive in foliage and habit, but is too tender for northern localities.

After many years of effort and the sowing of innumerable seeds, there has at last appeared two fairly vigorous seedlings of the prized Harison's Yellow rose. They are from chance or self-fertilized hips, all seeds from controlled pollinations having consistently failed to grow, and strongly resemble their parent. Blooms are awaited with interest, as some influence of *R. spinosissima* or species other than the yellow-flowered *R. lutea* may be looked for.

Rosa Hugonis up to this time yields seedlings inferior in vigor and attractiveness to the species, both from chance and carefully controlled pollinations. The seeds, though abundantly produced, are low in germinative powers, scarcely one in a

thousand coming up the first season after planting. It is to be hoped that this unusually attractive introduction will in time prove amenable to breeding influences, and give us some of the hardy, constant blooming, yellow varieties we are all waiting for.

Rosa Fargesii, mentioned on page 36 of the 1916 Rose Annual, turns out, on no less authority than Dr. E. H. Wilson, to be a deeply colored variety of the very handsome *R. Moyesii*, but is well worth preservation for its horticultural value.

Two new double-flowered white varieties of *R. rugosa* that seed with some freedom have been developed, and much progress has been made with dwarf everblooming seedlings of *R. Wichuriana* in the third and fourth generations of dilution from the wild type. It appears as if much can be looked for from this particular line of breeding work.

The Basis of Merit in Roses

By JESSE A. CURREY

EDITOR'S NOTE.—It is obvious to any thoughtful rose-lover that catalogue descriptions of roses do not always describe. It is also obvious that among the hundreds of catalogued varieties in American commerce there are many actual or approximate duplications. Further, there are now accessible for critical comparison in several of the rose test-gardens large collections of varieties, affording opportunities to determine duplications, and to select the best roses. Each year new roses are introduced, for each of which claims of superiority are made.

It is believed that there is a real rose-hunger in the United States, and that neither the present varieties nor the present supply of plants will satisfy it. If the less desirable varieties can be dropped; if the new sort is judged critically and fairly, upon a uniform and orderly scale, so that it may be recognized at its true value; if the aspiring rose-grower can have access to accurate and reliable records, then certainly more of the better roses will soon be available.

For the purpose of providing a scientific basis of determining merit in roses, the acute amateurs who have jointly worked out the plan which follows, have for many months given not only study but actual garden trial to that plan. It is therefore presented as a proper basis upon which to determine rose values; and it is hoped that in 1917 its application to the test opportunities of the various test-gardens under the wing of the American Rose Society will result in the accumulation of data of great value to all concerned in rose progress. Suitable blanks for judging upon this plan may be obtained upon application to the Editor.

A NEW system for scoring seedling roses has been devised by George C. Thomas, Jr., Dr. Robert Huey, of Philadelphia, and the writer. The system provides a far more complete means of judging and marking the individual characteristics of a rose than any system before proposed.

It has been designed for the scoring of outdoor-grown roses, and the primary intent of the makers of the schedule is that it shall be used in considering seedling roses.

For the purposes of accurately rating roses, we have first arranged three divisions of the qualities the valuable rose should possess. These are called "Individual Qualities," "Form," and "Habit and Growth." The number of points for each quality has been arranged on the metric system as a matter of convenience, and the total number of points is 100.

Under the heading of "Individual Qualities" has been included all those characters which mark one rose above another, viz.: *novelty*, *color*, *fragrance*, and *lasting quality*.

Under the division of "Form" the qualities considered are *shape*, *substance*, *petalage*, and *size*.

Under "Habit and Growth" the qualities marked are *blooming*, *hardiness*, *foliage*, *growth*, and *stem*.

In making the new schedule certain standards are established to which a rose should attain before it can obtain a perfect score, and this is particularly true of petalage.

A standard for blooming quality has also been established, the rule being that a plant which produces fifty blooms after the first year shall receive a perfect score for this quality. The standard for scoring stem is based on the length of stem back to the first branching.

The new system of scoring is as follows:

INDIVIDUAL QUALITIES—30 points, divided as follows:

Novelty (5 points). Conditions to be considered in judging:

1. With roses of any established class, the improvement or distinctiveness of the color, fragrance, lasting, shape, size, substance, petalage or stem, with regard to the bloom.

The improvement of the hardiness, foliage, or growth, with regard to the habit of the plant.

2. With roses of any new class, the distinctiveness, individuality, and improvement over classes already established.

Any new rose which is to receive an award as a new variety must have filed with the society under whose auspices it competes a certified pedigree, if that is known, or a certificate giving as many facts as possible with relation to its origin if the entire pedigree is unknown.

Color (10 points). Conditions to be considered in judging: Uniformity, both as to shades and markings; clearness and beauty of the color; and freedom from splotches, muddiness, and objectionable shades.

Fragrance (5 points). Conditions to be considered in judging: Abundance and refinement.

Lasting (10 points). Conditions to be considered in judging:

1. The lasting of the color of the flower cut and uncut.
2. The retention of the fragrance of the flower cut and uncut.
3. The lasting of the form of the flower, as a bud, as partly opened, and as a full-blown rose, cut and uncut.

FORM—25 points, divided as follows:

Shape (10 points). Conditions to be considered in judging: First, to consider the type of rose being judged, and to compare the exhibit with a rose of perfect shape of that type.

In regard to exhibition varieties, the most desired shape is a long spiral bud, which as the rose opens, maintains a high pointed center. Roses which are short in bud, and which open flat, should be adversely scored.

Substance (5 points). Conditions to be considered in judging:

1. To consider the type of rose being judged and to compare the exhibit with a rose of perfect substance of that type.
2. The weight or thickness of the petals.

Petalage (5 points). Conditions to be considered in judging: First, to consider the type of rose being judged, and to compare the exhibit with a rose of perfect petalage of that type.

In considering Hybrid Teas, Hybrid Perpetuals, Pernetianas, and other types of roses used for exhibition, first, the shape of the petals shall be considered; and second, the number of petals.

A rose of this type, to score the maximum under this quality, should have approximately forty petals. A single rose shall be one which has from four to ten petals; a semi-double rose shall be one which has from eleven to twenty-five petals; a double rose shall be one which has over twenty-five petals.

Size (5 points). Condition to be considered in judging: To consider the type of rose being judged, comparing it with a rose of perfect size of that type.

HABIT AND GROWTH—45 points, divided as follows:

Blooming (15 points). Conditions to be considered in judging: Length of the blooming season; continuity of blooms; and number of blooms produced.

In judging Hybrid Teas, Pernetianas, and other types of roses which bloom throughout the entire growing season, and which, on account of their beauty and length of stem, are useful as cut-flower varieties, a plant which, after the first year, produces fifty blooms should receive the maximum number of points for this quality.

Hardiness (10 points). Conditions to be considered in judging: To consider the type of rose being judged and to compare the exhibit with a rose of perfect hardiness of that type, noting particularly the amount of winter-killing and the extent to which the variety is affected by extreme heat or other climatic conditions.

Foliage (10 points). Conditions to be considered in judging:

1. The quality and substance of the foliage.
2. The lasting qualities of the foliage during the entire growing season.
3. The immunity of the foliage from mildew, spot, and other diseases.

Growth (5 points). Conditions to be considered in judging: To consider the type of rose being judged and to compare the exhibit with a rose of perfect growth of that type; special attention being given not only to the vigor of the plant and the number of canes produced, but also to the uniformity and even balance of the growth.

In judging Climbers or Ramblers, the strength and length of the shoot bearing the blooms and the branching habit shall be especially considered.

Stem (5 points). Conditions to be considered in judging: The length and strength of the stem which carries the bloom.

In judging exhibition varieties the following points shall be scored:

A plant on which the stem carrying the bloom is 6 inches in length shall receive 1 point; from 6 to 8 inches, 2 points; from 8 to 10 inches, 3 points; from 10 to 12 inches, 4 points; over 12 inches, 5 points.

Providing that, in each case, the stem shall be of sufficient strength to properly carry the weight of the bloom.

A review of these rules shows that the subject has been thoroughly studied. Without doubt the system will give more complete and accurate information as to the exact qualities a seedling rose shows than the former arbitrary scoring.

It is time the real rose-growers of America got away from the haphazard way in which the merits of roses have been passed upon, and get down to some sort of a standard system based upon scientific principles. Much labor has been spent in preparing the new schedule, and we do believe it provides the means of ascertaining the true value of each quality of a rose tested.

Under the old system the matter of judging a rose was largely left to the individual preference of the judge, who saw only the rose in bloom, and practically knew nothing about its other qualities, whereas under the new schedule the rose is given a scientific and accurate rating. What is the use of having test-gardens unless the roses tested there are reported upon in a scientific manner, and given a consistent marking? With such reports to compare, the net value of a rose could be found.

The schedule is not complicated when in actual use. A member of the Committee writes:

"I employed it last summer in my own garden, and with the score-card designed to go with it, the matter of compiling the record is largely mechanical. The items of novelty, color, shape, fragrance, size, and substance are judged under the new schedule practically the same as they are under present methods, but we have endeavored to define these qualities more clearly, simply as a means of guidance to the judges. In passing upon the other qualities in the new schedule, such as lasting, petalage, blooming, hardiness, foliage, growth, and stem, the matter of getting the data to guide the judge is purely mechanical.

"We have added qualities as individual qualities which were previously not considered; for instance the matter of petalage. Frequently this was confounded with substance; to prevent this confusion we made petalage a separate and distinct quality, for certainly the number of petals is an important factor in the general good of the rose. In addition to this we have endeavored in establishing petalage as a quality, to set a standard for a single rose, a semi-double rose and a double rose."

Methods of Rose-Growing

EDITOR'S INTRODUCTION

The keynote of the 1917 American Rose Annual is the fostering of rose hybridization and rose propagation in America. In line with this endeavor it has seemed worth while to call attention to certain methods of propagation not so extensively practised as is desirable, even though none of the methods in mind are new.

Dr. Huey's admirable article on "Propagation by Budding" is particularly important as it relates to the use of the Japanese Multiflora stock, in connection with the consideration of which readers are referred to the bloom details given in Mr. Thomas's article, page 21.

A distinct and most effective method of own-root propagation is set forth in Mr. Beadle's following article, which has had to do with a large practice.

The Editor confesses with regret that it has been very difficult to get from the great rose center at Springfield, Ohio, either details or statistics concerning the tremendous production of roses originating there. What Mr. John M. Good has written in the article following under this head is therefore particularly important as detailing a practice followed very extensively.

Nor has it been easy to get details as to the quantity of roses actually raised in America in outdoor nursery fields. One firm, Bobbink & Atkins, of Rutherford, N. J., grew in 1916 a great field of roses budded on Multiflora, the stock commended below by Dr. Huey. The Jackson & Perkins Co., raised large quantities of roses in Central New York, budding upon imported stock. (See Plate VII, facing page 73.)

Propagation by Budding

By ROBERT HUEY, Philadelphia

EDITOR'S NOTE.—Dr. Robert Huey has been a devoted rosarian for a full generation, and he writes from the standpoint of knowledge as well as interest. In Mr. Good's article on "Springfield Roses" the claims for own-root roses are fully set forth, and it is therefore appropriate to thus hear from one who based his opinions about budding upon long experience. It is also in point to note that three plans for rose-increase are set forth in these pages, recording the state of propagating progress in 1917.

The illustrations were drawn from photographs supplied by Dr. Huey.

AFTER some forty years of experimentation with various methods of growing roses, the writer is convinced that with most of the dwarf roses the best results can be obtained only by budding upon a suitable stock—Manetti for the Hybrid Perpetuals, Brier cuttings and seedling Brier for the Hybrid Teas and Teas; while all three classes can be successfully grown on seedlings of the Japanese Polyantha Multiflora.

Budding is practised to secure a more vigorous root-action

and consequently greater growth and development. It is not necessary to consume time and space to prove this, for the consensus of opinion with all amateur rosarians in the United States who have tried both budded and own-root plants is overwhelmingly in favor of budded stock for dwarf roses.

For the Hybrid Wichuraianas and other strong-growing varieties, nothing can be gained by budding, for there is no stock on which these could be worked that would add to their vigor. They do better on their own roots than when budded.

Most of the amateur rosarians in England grow annually a bed of stocks on which to bud favorite or rare varieties, and there is no good reason why we in the United States should not follow their good example.

The process of budding is simple and easily learned, and the results more than repay the slight amount of trouble and work involved. There is also a great amount of satisfaction to the amateur in producing good plants that will compare favorably with any he may purchase. The American amateur today is entirely dependent on the nurseryman or the dealer for new plants, therefore the writer, looking hopefully forward to the time when there shall be "a rose for every home, a bush for every garden," offers this little contribution to the brotherhood to which he so proudly belongs, in an effort to speed the welcome day.

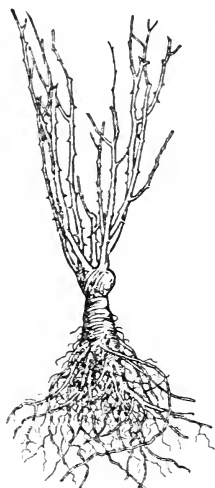


FIG. 1. Plant of Multiflora, ready for budding.

The Japanese Polyantha Multiflora has proved to be a good stock for most of the Hybrid Perpetuals, Hybrid Teas, and Teas in this climate. It is of very vigorous growth, and its seedlings mature rapidly. Seed sown in a southeastern window of a dwelling-house on February 9 produced plants large enough to set in the open ground early in May, and to bud in August. Of nineteen buds set at this time, sixteen "took;" but three were lost during the winter.

If the buds are inserted on the collar between the first "break" and the roots, there will be no suckers; but if the stocks



PLATE VI. New Hardy Climbing rose, SEEDLING No. 48
(See page 40)

are grown from cuttings, the usual risk of suckers being thrown out will be encountered. The best buds are obtained from a flowering shoot at the time that the bloom is fully open. The upper bud is usually not so "plump" as the others. If so, it should not be used, but the others will generally be in the right condition. When the shoot is cut, the groups of leaves should be removed, leaving half an inch of the footstalk at each bud for convenience in handling.

With a sharp knife cut the bud from the cion, beginning at a point half an inch above the bud and ending half an inch below, removing the bud with a small portion of the wood attached. (See B, and C, Fig. 2.) Then, with the point of the knife inserted between this layer of the wood and the bark, remove the wood carefully and the bud is ready for insertion. If on removing this layer of wood a deep indentation appears beneath the bud, this is evidence that the wood is too ripe and that the eye has been removed. Seek a less ripe shoot.

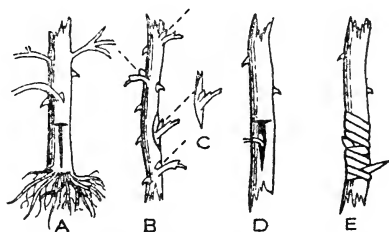


FIG. 2. Detail of rose budding. A, the stock, with slit cut for insertion of bud. B, the rose shoot. C, bud cut from shoot. D, bud inserted in stock. E, wrapping of raffia.

Remove the soil carefully from around the stock, exposing the upper roots, and wipe clean. Plan to insert the bud at the collar, i. e., that portion of the stock between the uppermost root and the first shoot. This space is usually from an inch to an inch and a quarter in length, and affords ample space for a successful operation. Be sure that your budding-knife is sharp, for you always need a clean cut. Make a longitudinal incision through the bark one inch in length and a crosscut of about one quarter of an inch at the top of the longitudinal incision, but do not cut into the wood any deeper than necessary. Insert the thin bone handle of the budding-knife into the incision at the top and gently separate the bark from the wood on both sides the full length of the cut, about a quarter of an inch wide. (See A, and D, Fig. 2.)

If the bark does not separate readily, the stock is not in the best condition for the success of the operation. Soak the plant

and adjacent ground *thoroughly* and wait two days, when you will find that the bark will separate satisfactorily.

The bud should be cut *now* (not before) and inserted by sliding it under the bark, beginning at the top and gently pushing it down. If any portion of the bark projects above the cross-cut, trim this off evenly. If the lower end of the bud is cut to a triangular point, it can readily be pushed to place. Bring the edges of the cut together and tie *tightly* with *wet* raffia, beginning below the cut and ending above it. Be sure that every portion of the cut is covered and that the edges are drawn tightly to the bud, but dexterously pass the raffia around the eye as it must not be covered. (See E, Fig. 2.) Do not remove any branches from the stock unless it is necessary to get at the collar, in which case cut out one or two of the lowest. The more wood left, the greater the flow of sap.

Be sure that no dirt gets into the incision or on the bud. Do not cover the bud with earth, but protect it from the sun's rays. The north side of the stock will be found the best in which to insert the bud, in this climate. The operation is now complete until February, when the entire top of the stock should be cut off clean, about half an inch above the bud.

If upon examination it is found that the bud has not "taken," the stock should not be cut back, but budded on the other side the following June. As soon as the bud begins to grow, a light stake should be driven close to the plant and the new growth tied to it, that it may not be blown out by high winds until firmly established.

The plant should be taken up in the autumn and placed in its permanent home, with the bud set about two inches beneath the surface.

One or two plants of the Japanese Polyantha Multiflora in every garden will yield sufficient seed from which to raise a hundred or more stocks*.

*Botanically, the "Japanese Polyantha Multiflora" is merely a variety of *Rosa multiflora* from Japan. The "Polyantha" part of the name has no special significance, it is believed.—EDITOR.

The Trenching Method of Rose Propagation

By C. D. BEADLE,

Superintendent Biltmore Estate, Biltmore, N. C.

EDITOR'S NOTE.—Several years ago, during a visit to the then operating Biltmore Nursery, the Editor was shown a method of propagating roses on their own roots which seemed notably simple, efficient and economical. The plan was later mentioned to other rose nurserymen in various parts of the country, but without finding anyone actually familiar with it. Most propagators insisted that it was simply the old "layering" method, somewhat modified. Because of this misunderstanding, and in order to present the details of a very meritorious plan of rose production, Mr. Beadle was asked and has consented to describe his "trenching process," with suitable drawings.

I DO not know that there is anything original or unique in the "trenching process," as we style this particular method of propagating; but it has very materially expedited our handling of several rather refractory subjects that, in some cases at least, are better on their own roots than are similar grafted or budded plants.

It is no easy matter to produce some kinds of roses on their own roots in a practical, commercial way; and it was not until we had stumbled on and somewhat perfected the plan of which the Editor has asked details that we were able to anticipate such propagations with any degree of certainty or satisfaction.

Take, for instance, the Brier roses (like Persian Yellow, Austrian Copper, Penzance Sweetbriers), Damask roses (of which class the parti-colored types, such as York and Lancaster, are in active demand), and several other classes which have heretofore been handled almost exclusively as budded or grafted plants, and we find that they are susceptible of easy multiplication by the trenching process.

But why not continue to bud or graft them when Manetti or similar stocks are so plentiful and cheap? That is just the point. We have on several occasions furnished considerable quantities of such types of roses which were worked on standard stocks, for mass and hedge planting, and the results, in the hands of amateurs, were invariably disappointing in a comparatively short time. Only yesterday we were looking over a hedge of that exquisitely beautiful rose of the Rugosa type, Parfum de l'Hay, than which, in color and fragrance, no rose is

more captivating. More than half the growth was from the stocks, and the cions in many instances were not only eclipsed but suppressed or decadent. It was to perfect and protect this kind of planting that the trenching method of propagating was inaugurated. We have found it equally practicable with



FIG. 3. The roses budded in trench propagation.

lilacs, flowering almonds (forms of *Prunus triloba* and *P. nana*), and a number of other shrubs that are usually unsatisfactory as budded or grafted plants.

The process is simplicity itself. First, we select the plants that we desire to propagate from, either budded, grafted, or own-root stock, and plant them out in nursery rows in an almost horizontal position, spacing the plants closely, so that they lap over each other as shown in the drawing (Fig. 3).

The next step is to provide a covering of earth almost sufficient to conceal the plants from view, and to arrange that the rows are depressed enough to provide for a further filling as the growth advances, as shown in cross-section drawing (Fig. 4).

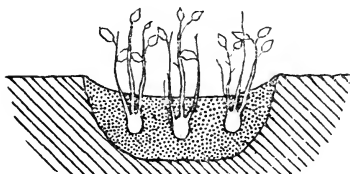


FIG. 4. Cross-section of trench after planting.

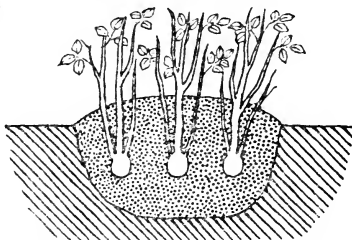


FIG. 5. Cross-section of trench after a season's cultivation.

By the end of the season the ordinary field cultivation afforded by horse-drawn cultivators will have a tendency to fill up the depression or even to heap it up to some extent, as shown in cross-section drawing (Fig. 5).

At the close of the first growing season, or at any convenient time during the dormant period, the trenched plants are dug up and the vertical shoots are severed from the horizontal stems

at the lowest possible point. Sometimes the parts so selected will be found with some adhering root-system; but this is not essential. The chief thing is to have acquired a goodly portion of root-bark—a covering or tissue quite different from the portions above the ground-line. These “cuttings,” with their root-bark or developing root-systems, are then planted out in nursery rows, or in cutting-beds, and grown for one or more seasons, until independent and merchantable plants have matured.

It is really surprising the quantity of such “shoots” or sprouts that can be obtained, and, as intimated above, often with a more or less developed root-system—especially if the cultivation has resulted in covering the original plants with sufficient depth of earth.

Springfield Roses

By JOHN M. GOOD, Springfield, Ohio

EDITOR'S NOTE.—While the pages of this Annual are in no sense controversial, they are inclusive. Writers of whose fine spirit and honesty there can be no doubt differ as to methods of propagation, and it is proper that all such views shall be presented. Mr. Good has grown and disposed of many millions of roses, and he writes of the small-plant own-root summer-propagation method with conviction. It is certain that roses can be grown in the “Springfield” way at a low cost per plant, not taking account of size, etc., and that these same small plants can be transported to the customer cheaply.

I AM asked to write an article on roses, and as I know but little about roses, except the kind that are grown at Springfield, hence the caption “Springfield Roses.”

You ask why “Springfield Roses?” Because there is a rose grown in Springfield and within a short distance of this point that is not grown elsewhere—not grown abroad, not grown east, not grown west, not grown north or south.

How may it be distinguished in its production from roses grown elsewhere? There are three ways to propagate roses. The winter increase in roses is by two of these methods: First, where the wood is taken from growing plants and placed in warm propagating-beds. The wood for this method may be either grown under glass or may be taken from the field in warm climates. Second, where the wood is taken dormant, either from glass or field-grown plants, late in the fall or winter and

placed in cool beds. Both of the above methods are known as "winter propagating."

Now we come to the Springfield plan. The wood is taken from plants grown under glass during the late spring, summer or early fall months, at a slight increase of temperature over that of outdoors. The cuttings are placed in warm beds; when potted are placed under glass and are grown to the proper size during the summer. They are then hardened off and go through the winter in a dormant condition as to the Hybrid Perpetuals and hardy roses, and in a semi-dormant condition as to the Hybrid Teas, Teas, and the more tender varieties.

The claim made for it—which it is amply able to uphold—is that all the unnaturalness of forcing out of growing season is eliminated, both in the production of the wood and the growth of the plant; so the slogan "Own-root, summer-propagated, winter-rested roses, produce the best results." The "proof of the pudding" is the ever-increasing sale for the Springfield rose. "Duplicate my order of 50,000 rose plants of last spring and add 20,000 in the following varieties." Then again, "We have tried so and so and so and so's roses, have tried to grow them ourselves and here we are back; and believe me, we will stick. Never had anywhere near the success we have had with your roses."

There are few roses that may not be successfully grown under the Springfield plan. Usually, many varieties of Hybrid Teas and Hybrid Perpetuals are stubborn propagators under the winter plan, while under the summer plan they are easy. All know that Frau Karl Druschki is classed as a "hard one to propagate," yet under the summer method it roots "like a weed."

The results in the garden are pronouncedly successful when intelligent cultivation is employed with the small plants. They surprise all who plant them, and this fact undoubtedly tells the story of the rapid increase from year to year of their planting. One order for 500,000 of one variety tells its own story.

This article is not an advertisement of the Springfield rose, and is not so intended. The Springfield rose advertises itself; the demand is greater than the supply even with the many acres of glass working to their full capacity.

Rose Importations

By THE EDITOR

IN 1915 the President of the American Association of Nurserymen in an address made a statement with respect to the importation of roses into the United States which challenged attention. In consequence of this statement, and through the coöperation of Mr. F. L. Mulford, of the Department of Agriculture at Washington, data has been secured as to the importation of roses and rose stocks into the United States for four fiscal years beginning with 1913. A table graphically presenting the facts of importation follows on the next page. It should be noted that the fiscal years in question end with June 30 in each year.

There is no separation as to the kinds of roses, of course, but it is certain that the quantities named are those upon which duty was paid to the United States within the period covered.

Certain interesting parallels may be drawn. Belgium, for instance, furnished 25,196 rose plants in 1913, but the importation had fallen to 1,223 in 1916. The exportation of roses from England has increased almost 1,000 per cent in four years, and for 1915 exceeded that increase.

It appears that France has been sending us many roses right through the war, and also that the quantity of rose stocks imported has increased materially in the last three years.

The figures with respect to Holland are significant, both as to rose plants and rose stocks.

Taken in total, it appears that as compared with 1913 we received in 1916 nearly 43 per cent more rose plants, and about an equal increase occurred in importations of rose stocks. Combining these two large items the increase is the same; that is, the importation for the fiscal year ending June 30, 1916, was 43 per cent in excess of that for the fiscal year of 1913. Comparing with 1914 the increase is much greater.

A careful study of these statistics is worth while to any rose-grower. It would seem that present conditions warrant increased production of rose material in the United States.

IMPORTATIONS OF ROSE PLANTS AND STOCKS

As recorded by the Federal Horticultural Board (See article on page 55)

Country	Year ending June 30, 1913		Year ending June 30, 1914		Year ending June 30, 1915		Year ending June 30, 1916	
	Plants	Stocks	Plants	Stocks	Plants	Stocks	Plants	Stocks
Austria	125	. . . . 2	. . . . 6	. . . .	. . . .	. . . .	. . . . 35	. . . .
Azores	2	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Belgium	25,196	230	9,826	. . . .	. . . .	. . . .	1,223	. . . .
Bermuda . . . . .	. . . .	. . . .	6	. . . .	. . . .	. . . .	5	. . . .
British Guiana . . . . .	. . . . 5	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Canada	10	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Cuba . . . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	3,544	. . . .
Denmark	106,455	. . . .	. . . .	. . . .	. . . .	. . . .	1	. . . .
England	48,507	2,043,846	41,327	2,083,000	22,444	2,823,100	25,525	. . . .
France	200,283	978,266	318,625	1,022,450	585,290	2,409,049	414,174	1,947,800
Germany	52,796	20,600	33,419	. . . .	235,080	2,000	180,461	2,217,804
Grand Duchy of Luxembourg . . . . .	. . . .	. . . .	. . . .	. . . .	49,344	. . . .	. . . .	. . . .
Holland	1,632,252	165,557	11,458	. . . .	4,000	. . . .	. . . .	. . . .
Hungary . . . . .	. . . .	. . . .	1,439,718	92,925	2,502,834	154,640	2,375,823	1,065,360
Ireland	107,228	470,364	. . . .	. . . .	15	. . . .	. . . .	. . . .
Italy	42	100	43,256	193,000	98,186	100,000	104,201	257,500
Japan	146	. . . .	. . . .	. . . .	24	20,000	. . . .	. . . .
Norway . . . . .	. . . .	. . . .	250	5	12	. . . .	23	. . . .
Scotland	7,522	438,800	. . . .	165,000	1	300,025	225	389,500
Sweden	92	. . . .	5,765	. . . .	14,100	. . . .	17,984	. . . .
Switzerland . . . . .	. . . .	. . . .	. . . .	. . . .	2	. . . .	. . . .	. . . .
Total	2,180,601	4,117,765 2,180,601	1,903,707	3,556,380 1,903,707	. . . .	5,808,814 3,515,568	3,123,224	5,877,964 3,123,224
Grand totals		6,298,366		5,460,087		9,324,382		9,001,188

How to Conduct an Amateur Rose Show

EDITOR'S INTRODUCTION

The American Rose Society has fostered and perfected methods for conducting great national rose shows in which professional growers compete with greenhouse-grown roses for substantial prizes. It is now desired to suggest the holding of many shows in which may be exhibited during the June rose month the best flowers amateurs can produce.

The notable success of the annual shows of the Syracuse Rose Society; the equally interesting shows held in Ontario, as detailed on page 89; the great amateur exhibitions held each year in the Pacific Northwest—all these point the way, and emphasize the desirability of fostering the showing of roses in friendly competition at their natural maximum bloom time.

Obviously, by reason of the difficulty of shipping June roses to any distance, these shows must be rather closely local in character, and are found to be successful when even of but one day's duration, including the receipt, staging, judging, and open exhibition.

An existing organization can take up the holding of a rose show, or a half-dozen or more interested persons might form a local rose society, communicating with the Secretary of the American Rose Society for details as to affiliation, medals, etc. Monthly meetings can be made interesting in discussing rose subjects, looking at lantern-slides which may easily be rented, and otherwise taking up the improvement of rose conditions.

It will be found, usually, that the local newspapers are glad to help in promoting knowledge of the attempts of those who wish to increase interest in and enjoyment of the rose. If an exhibition is arranged, announcement should be made from one to two months previously, so that interested amateurs may properly prepare to compete.

Experience is always a good guide; wherefore the following letter from Mr. James Boyd, secretary of The Main Line Flower Show Association in Pennsylvania, will be of service:

"I am glad to tell you of the very successful rose exhibitions of the Flower Show Association of the Main Line.* All lovers of flowers are invited to exhibit, whether members of the Association or not. No entrance fees are charged. It is an amateur's show exclusively and exhibits are not desired from commercial growers. In fact, several of the prizes are exclusively for exhibitors who cultivate their own gardens. In these classes any member who employs a regular gardener cannot compete.

"We send entry cards with our schedule of prizes, and permit entries at any time before 11 A.M. on the day of the show. The entry cards which designate the number of entries in each class are presented to the clerk who sits at a desk just within the door of the exhibition hall. He furnishes for each entry a tag bearing the number of the entry and the number of the class in which it is to be exhibited. The exhibitor must attach this tag to his exhibit conspicuously. These tags are like small shipping tags and have strings so that they can be tied around the stem of a vase or to a flower-stem. We require that all exhibits shall be delivered with tag properly attached, at the door of the exhibition room before 11.30 A.M., but we do not allow the exhibitors or

*The "Main Line" is a localism referring to certain residential communities on the Pennsylvania Railroad within twenty miles of Philadelphia.—Editor.

gardeners admission to the exhibition until after the judging has been completed.

"The tables are such as are ordinarily used for large lunches and banquets, being mounted on wooden horses, and all being of uniform width. We cover them with brown paper, tacking the edges underneath, and we divide the classes by means of light strips of wood about the size of a lath, which are painted green. These sticks extend across the table and can be moved up or down according to the number of entries in the class and the room required for same. In each space we have a small metal stand holding a card bearing the number of the class.

"The exhibition committee is composed mostly of ladies, and they have been most successful in the grouping and arranging of the exhibits. The classes do not necessarily follow one another in sequence, but those for climbing roses and for large displays are put on the stage or against the walls, or wherever they will show to the best advantage. No climbing roses are admitted with a branch or spray over three feet in length. We make quite a feature of floral decorations suitable for the house, and have prizes for the most artistic arrangement of a center-piece suitable for the dinner table and another for the most artistic arrangement in vase, bowl, or basket for hall or library table. These exhibits are usually placed on small round tables which are covered with a white cloth. They are not confined exclusively to roses. All perennials are admitted, either by themselves or in combination with roses. We exclude, however, everything that has been grown with artificial heat.

"We give no cash prizes, but have a number of handsome silver cups, some donated by individual members, and others given by the Association itself. Some of these cups, such as one for the best display of thirty blooms—five each of six named varieties, in separate vases—have to be won three times to become the property of the exhibitor, and he must be a member of the Association. In the regular classes for Hybrid Perpetuals, Hybrid Teas or Teas, we limit the number of blooms to three, giving a prize for the best vase of red, three blooms, one named variety; best vase of white, three blooms, one named variety, etc. As a rule we give two prizes for each class, and in the climbing roses we give a class for each color and a prize for the best vase of two branches, one or two named varieties. Our prizes in addition to silver cups are rosettes, quite like those ordinarily used at horse shows. We use blue ribbon for the first, red for the second, and yellow for the third.

"By excluding gardeners and exhibitors from the hall before judging, and having the exhibits arranged by an exhibition committee composed mostly of ladies, we are able to get very beautiful and artistic effects. We make no charge for admittance, and the more visitors we have the more pleased we are."

Details and Classification for Amateur Shows

By JESSE A. CURREY, Portland, Oregon

NO one, I believe, has ever prepared an ideal classification list for a rose show—that is, a classification which some individual or group of individuals would not criticize—but usually when such criticisms are investigated it is discovered the complaint arises from the fact that the classifica-

tion does not fit the garden of the critic. Through an experience of several years of being associated with or actively engaged in staging the largest amateur rose show in the United States, I have formed certain ideas of what a rose show, particularly for amateurs, should endeavor to accomplish.

The main object in arranging a show for amateurs is first to give them encouragement to grow better and more roses, to educate them how to do it by exhibiting the accomplishment of other amateurs, and by providing a series of classes in which every amateur feels he will be competing on an equal footing with other amateurs. Small gardens should never be compelled to compete against large gardens except in certain what might be called "free-for-all" or open classes in which only a limited number of blooms are required to be exhibited; for nothing will so quickly kill the interest of an amateur of limited means or garden space as when he is compelled to compete against an extensive grower.

The name of an exhibitor or means of identifying the owner of an exhibit should not be seen until after the exhibit has been judged. This can be managed by having each exhibitor draw from a box perforated tags numbered in duplicate, one tag for each exhibit to be made. When the exhibit is staged, one end of the tag is fastened to the exhibit, the other end bearing the duplicate number is placed in a locked box after the exhibitor has written on it his or her name and address. After the displays have been judged the box containing the duplicates is opened by the proper officials and the exhibit can then be identified. I also feel that the organization having charge should provide all equipment such as vases, baskets, etc.

One class should provide for the display of one rose from each garden. The rose entered is supposed to be the best rose the exhibitor has in his garden on the day of the show.

No feature of a show is more interesting than a display of individual specimen blooms, staged in boxes of the size and shape required by the National Rose Society of England. With the roses placed in Foster tubes or similar devices and with a backing of fresh green moss, the individual characteristics of each bloom are so emphasized that the spectators spend more time around such displays than they do in any other part

of the show. In arranging the box exhibits there should be classes calling for six, twelve, eighteen and twenty-four specimen blooms, and with four such classes both the large and small grower will find room to compete. Displays in baskets are always attractive, and they should be governed as to the number of blooms to be shown, for no basket should contain less than twelve or more than twenty-five roses.

Every show should provide classes limited to displays arranged solely by women, and if the managers of the shows keep this in mind they will have some enthusiastic supporters and workers to make the show a success. These classes for women can be either for table decorations or the making of a corsage bouquet.

No exhibitor should be permitted to take more than one prize in any one class. He should be permitted to make as many entries as he desires in any class, except the one calling for the one best bloom from the garden.

Every effort should be exercised to have all roses on exhibition properly named, and penalties should be provided where a person "doctors" or dresses a bloom so as to alter its character. The status of an amateur should be clearly defined, and no one who sells rose plants, rose blooms, or a person in the employ of a nurseryman, although he may want to exhibit from his own home garden, should be permitted to compete against the real amateur.

Following these general suggestions, I propose the following classification, leaving to the manager of each show the number of prizes which should be awarded in each class or section:

DIVISION 1—GENERAL COMPETITION

Section A—Exhibited in vases.

Best bloom from the garden. No more than one rose shall be exhibited from any garden.

Section B—Exhibited in regulation boxes.

Class 1—Six roses, separate named varieties.

Class 2—Twelve roses, separate named varieties.

Class 3—Eighteen roses, separate named varieties.

Class 4—Twenty-four roses, separate named varieties.

Section C—Exhibited in baskets. Not less than twelve or more than twenty-five roses in a basket.

Class 1—Basket of red roses.

Class 2—Basket of pink roses.

Class 3—Basket of white roses.

Class 4—Basket of yellow roses.

Class 5—Basket of roses of mixed colors.

Section D—Exhibited in vases.

Class 1—Six sprays of any one named variety of climbing or pillar roses.

Class 2—Twelve sprays of any one named variety of climbing or pillar roses.

Class 3—Six sprays of any one named variety small climbing or rambling roses.

Class 4—Twelve sprays of any one named variety small climbing or rambling roses.

Section E—Exhibited in vases or baskets.

Class 1—Display of brier or decorative rose of any one named variety.

Class 2—Display of single-flowered roses of any one named variety or mixed variety.

Class 3—Display of baby or Polyantha roses of any one named variety.

Section F—For women only.

Class 1—Tea-table decorated. Only blooms permitted are roses. Ferns, smilax, or other greens permitted for decorations.

Section G—For amateurs who have never won a prize.

Class 1—Six separate named varieties exhibited in regulation boxes.

Class 2—Three roses of any one named variety exhibited in vases.

Class 3—Basket containing not less than twelve or more than twenty-five roses, either one named variety or mixed varieties.

DIVISION II—FOR GARDENS OF LESS THAN FIFTY BUSHES

Section H—Exhibited in vases.

Class 1—Three Hybrid Tea roses of any one named variety.

Class 2—Three Hybrid Perpetual roses of any one named variety.

Class 3—Three Tea roses of any one named variety.

Section I—Exhibited in vases.

Class 1—Seven Hybrid Tea roses of any one named variety.

Class 2—Seven Hybrid Perpetual roses of any one named variety.

Class 3—Seven Tea roses of any one named variety.

Section J—Exhibited in bowls or vases. Not more than twenty-five roses.

Class 1—Twelve or more red roses of any one named variety.

Class 2—Twelve or more pink roses of any one named variety.

Class 3—Twelve or more white roses of any one named variety.

Class 4—Twelve or more yellow roses of any one named variety.

Class 5—Twelve or more roses mixed as to colors.

DIVISION III—FOR GARDENS OF MORE THAN FIFTY BUSHES

Section K—Exhibited in vases.

Class 1—Seven Hybrid Tea roses of any one named variety.

Class 2—Seven Hybrid Perpetual roses of any one named variety.

Class 3—Seven Tea roses of any one named variety.

Section L—Exhibited in vases.

Class 1—Twelve Hybrid Tea roses of any one named variety.

Class 2—Twelve Hybrid Perpetual roses of any one named variety.

Class 3—Twelve Tea roses of any one named variety.

Section M—Exhibited in bowls or baskets. Not more than fifty roses permitted.

Class 1—Twelve or more red roses of any one named variety.

Class 2—Twelve or more pink roses of any one named variety.

Class 3—Twelve or more white roses of any one named variety.

Class 4—Twelve or more yellow roses of any one named variety.

Class 5—Twelve or more roses mixed as to colors.

Section N—Exhibited in baskets.

Class 1—Best basket of fifty or more blooms of either one color or mixed.

The Rose All Over America

EDITOR'S INTRODUCTION

That universal flower, the rose, owns America, and is recognized as supreme in floral sovereignty in a land otherwise most democratic. It is the aim of the American Rose Society to extend and perfect the sway of the queen of flowers until there is "a rose for every home—a bush for every garden." We gladly hear, therefore, of rose progress in various parts of the continent.

The rose test-gardens maintained under the auspices of the Society are now becoming well established, and in 1917 there will undoubtedly be throngs of people seeing and loving roses in consequence. The data from these gardens are later to be made helpfully available, and elsewhere in this Annual will be found the suggestion of an orderly arrangement for judging the varieties as they bloom.

We welcome this year the foundation of the Portland National Rose Test-Garden, under peculiarly favorable circumstances.

A Great Rose-Garden and Its Message

By G. A. PARKER

Superintendent of Parks, Hartford, Conn.

EDITOR'S NOTE.—On page 69 of the 1916 Rose Annual were given the details of construction, maintenance and cost of the first municipal rose-garden in America, in which continues the first and yet the best of the several rose test-gardens supervised by the American Rose Society. Mr. Parker, who prepared that article, and who is easily the leader among American park superintendents, is an able and practical worker, obtaining results in park administration that serve as a model. That Mr. Parker is an idealist as well is indicated by the poetic message which follows.

THE Editor of the Annual asks, What of the Elizabeth Park Rose-Garden last year?

The answer: it has given its message to all those who have come within its borders.

What is that message? Let us reason together, and see.

Man was driven out of his Garden of Eden, and kept from returning by the flaming swords of weakness, disease, despair and death, but with the banishment was given the knowledge that he could return through redemption and love, and through all of his stumblings and wanderings and misdeeds this assurance has upheld him.

In another garden, which was an Eden to it, even though it was the swamp and wilderness, grew the wild bramble, covered with thorns, with dull divided leaves, and a single flower with

many stamens. Weak in stem, depending upon a neighboring tree for support, or groveling on the ground, a plant of no use to man, yet it appealed to him, for it was typical of his own cast-out position. He took the bramble, planted it by his hearth-stone, cultivated it, and changed its stamens into petals. Its dull, broken leaves came into great brilliancy and beauty, and behold! the double rose as we now know it, with its message of love and its earnest of the new life to come, symbolic of the journey of both the man and the rose! Success has come out of the wilderness and swamp, even though subject to the consuming power of insects and habits, and the cankering effect of fungi and sin. These are overcome by the skill of the gardener and of the spirit. Both are maintained only by eternal vigilance.

But what of the message the rose is telling us?

It is saying that our thorns may be lessened in number and kept for protection and not for injuring our neighbor; that our daily struggle for existence may become like brilliant leaves free from insects and fungi and absorbing and assimilating the needs of life from our environments; that our thoughts, even though like narrow filaments, may expand into broad velvety petals; that our emotions, even though a dull monotone, may receive a most glorious coloring, worthy to be the shrine of the Goddess of Beauty, an earnest of the promise of the Creator that we may enter a new Garden of Eden.

So, the rose has become the companion of man, going with him wheresoever he goeth, growing in his garden, and by his door-step, decorating his rooms, and his tables; placed in the button-hole and at the corsage; worn in the hair and on the breast; going with the bride to the altar; shielding the form in the casket and remaining with us at the grave, everywhere a symbol of love and good will, of hope and courage.

What is the answer to this message?

If accepted, the answer is happiness.

If rejected, the answer is hate.

You ask, what of the Rose-Garden last year? The answer is that it has cast its blessings over greater numbers than ever before. That a larger proportion of visitors have carried away its benediction, and that is the reply "Mistress Elizabeth Park" would have her "Rose-Garden" send to you.

The Garden Clubs and the Rose

By MRS. FRANCIS KING, Alma, Michigan

EDITOR'S NOTE.—Certainly one of the most influential women of America in garden circles, Mrs. King has had much to do with organization work. She is president of the Woman's National Agricultural and Horticultural Association, and a vice-president of the Garden Club of America. Her recently published book, "The Well-Considered Garden," is of notable value.

THE Editor has asked me to tell the little that I know concerning the interest of the garden clubs of this country in the flower celebrated in the American Rose Annual.

The outstanding fact seems to be the pleasant one that almost none of the garden clubs pass a summer without either a lecture on the rose or a show of the same flower. Rose shows are very common among the clubs, perhaps especially among those on Long Island where roses flourish so remarkably. It is impossible not to attribute this fact partly to the nearness of the great garden of Admiral Aaron Ward and to his known generosity toward less-experienced amateurs.

Through the medium of the garden clubs, too, we shall develop, if I am not mistaken, a group of good amateur writers on the rose. Two articles of uncommon charm and excellence I have in mind in saying this—one wherein the subject was the writer's own rose-garden, the other the June pictures in the nursery of one of the foremost rose-growers of the country. The cultivation and study of a particular flower is sure to result in time in its literature; and it is safe to say that in a few years there will be here, as in England, pamphlets and books by amateurs for amateurs on the flower whose praises this book sings.

In the matter of civic planting where the rose is concerned, the Garden Club of Cincinnati most surely takes the lead. Let me quote from some published reports which I happen to have by me. In April, 1915, a committee of this Club, "a committee on the Improvement of Highway and Settlements, announced through the press that five thousand Dorothy Perkins roses had been procured and would be sold at the nominal price of ten cents each to any resident of the city or suburbs who cared to avail himself of the offer. Response was immediate and

enthusiastic, the demand proving so great that instead of five thousand, ten thousand plants were disposed of." In the following year the same Club "opened a distributing station from which in two days many thousand Crimson Rambler plants were sold at the nominal price of ten cents each." Without seeming to cast aspersions upon the previous condition of any part or parts of Cincinnati, may we not conclude that this group of gardening women must have made the wilderness to blossom as the rose?

The garden clubs grow from year to year more intent upon visits to fine gardens; and it should be part of the business of the American Rose Society, through its members who are also members of the clubs, to keep before the latter the dates for inspection of such fine rose-gardens as are open to the American public. I speak now of the National Rose-Garden at Arlington, the celebrated rose-garden at Elizabeth Park, Hartford, that in Minneapolis, the experimental rose-garden at Cornell, and of all private rose-gardens which through the kindness of their owners may be thrown open when bloom is at its finest. Seeing is not only believing in such lovely things as these; it is emulating as well. This is the only kind of covetousness which is not only allowable but actually beneficial.

Before me lie the American Rose Annual for 1916 and the Annual of the National Rose Society of England for 1913. Among various contrasts which come to mind as one looks through these books is that in the matter of illustration the English publication deals with the rose as an individual bloom or plant, while the American Annual's pictures, almost without exception, show the rose in relation to its surroundings of greensward or background of foliage. Thus the larger connection for the rose is brought forward—its use with regard to its setting.

On one of these pictures I should like to dwell for an instant, as a matter for constructive criticism. It is the colored plate of the rose as seen in Portland, Oregon. If there is one thing more than another which is an essential to beautiful rose-growing it is a quiet background of some kind, preferably of green. The rose has no place in the midst of busy or commercial surroundings. The rose set along a city curb, as shown here, as I

have seen it, too, in Tacoma, Washington, is unsuitably placed and cannot, therefore, show itself to perfection. Roses in such cities could be massed in little hedge-inclosed gardens; they could be set against vine-covered house-walls. Here their bright profusion would give its fullest beauty; the general cause of good civic planting would take a step forward, and the glorious flower come more completely into its own. I understand that this misuse of the rose is common also in Californian cities as well as in those just named. It would be well if the doctrine expressed in the old saying "All's fair that's fit" could be preached in all such regions. Let the people be shown that flowers so choice, so delicate as the rose, have no place at the very edge of the public highway; that a rose out of place is a true desecration of beauty, and that green, and green only, is the suitable color for parkways and street-edges in general.

Work and Play in a Texas Rose-Garden

By WILLIAM W. ANDERSON, Houston, Texas

EDITOR'S NOTE.—A new angle on home rose-growing in the far South is given us by a busy lawyer of Houston. Mr. Anderson loves the rose, and he knows her literature, as these following words will prove.

SOME years ago, office confinement began to tell on my vim and ability to run a foot-race or split rails, and I found myself at times noting with dread the pale visage and clammy hand of some anemic leading a sort of chronic incubator existence. These shocks were followed by thoughts about the broad country and outdoor men, and ruminations about getting enough sane bodily exercise to give life a natural balance and save me from that cellar look without stopping my law practice—not an easy thing in the city, with its incubator street-cars, elevators, offices, and courtrooms, too much talk, outdoor narrowness of all kinds, and so forth.

When my daughter Mary spelled out a well-worded rose advertisement in "The Country Gentleman" and said she would love to have some roses like that, I had the clue. Although it was August, an unfavorable month for planting in Houston, I ordered a few large dormant roses, planted them with great

care, shielded them from the sun, and uncovered them at night for about two weeks. They all grew like weeds and bloomed in October. I think the Climbing Kaiserin grew six feet that fall. From this I learned that I could safely plant roses in the hottest weather if I would follow the planting with enough work and watching. I now have about three hundred roses—not many for a nursery but a good many for a moderate-sized city place and my spare time. I did all the work myself. Ever since, in winter or in summer, I have found by day, and often by night, something I could do for the dwellers of my little rosery; and among them I daily work and play. I seem to have forgotten about my health, for I have grown well in the garden among “simple pleasures that always please,” where I can “let the wind blow on me as it list” in all weathers.

Some moral pervert who wrote a book about roses advised planting them in back yards only, because not always in bloom or leaf. I admit that the back yard should also be filled, after the front yard has been covered so far as the rest of the family will allow; but there is no need of planting roses in the back yard for any such reason. If the surface of the soil around them is kept well raked, loose, and smooth, especially if the earth is good and black or rich brown, with well-trimmed grass round about, the rose-beds will always be beautiful and the roses will look well throughout the year, in south Texas, with fair treatment otherwise. Nicely raked and smoothed soil where nothing is planted is beautiful. I sometimes rake the beds for appearance only. This combing of the soil has the same effect as dressing a boy's hair.

To get the most from outdoor roses for cut-flowers, particularly in summer, they should be cut about sunrise, in the bud or in the half-open state, with the dew upon them, and kept away from the sun. The proper stage varies with different roses and in different weathers. Some common roses when so handled make a fine appearance and last for days. The choice varieties, if not always so large as greenhouse roses, are often superior in charm, and the odor at least surpasses that of the greenhouse roses. The Duchesse de Brabant is in a class by itself, and makes a fine bouquet when cut early and not mixed with other roses.

Burns sings of the dewy roses, and Spenser tells us in the sixteenth century to—

“Gather therefore the rose whilst yet is prime,
For soone comes age that will her pride defloure.”

Scott testifies that—

“The rose is fairest when ‘tis budding new,
The rose is sweetest washed with morning dew.”

In the fourteenth century, Chaucer told how and when to cut roses. Of buds (“knoppes”) just started “faste for to sprede,” he said—

“I love welle sich roses rede;
For brode roses, and open also,
Ben passed in a day or two;
But knoppes wille freshe be
Two dayes atte leest, or thre.
The knoppes greatly likede me,
For fairer may there no man se.”

In color, fragrance, foliage, and good health, Etoile de France is perhaps our best outdoor red rose, and Radiance the best pink. The bloom of Jonkheer J. L. Mock is glorious in size and color, but it is odorless here, and the foliage is not so good as that of Radiance. La Detroit grows well and is fine for dew-cut flowers, having solidity, fair odor, unique form, and lasting quality. Splendid white roses here are Climbing Kaiserin Augusta Victoria (whose color, odor, growth, and foliage are excellent) and Frau Karl Druschki. The latter is also a climber here and thrives and blooms well in the spring, blooms a little all summer, and tries to bloom all winter, sometimes succeeding. In hot weather the flowers are delicately tinted with pink, and very beautiful. Mme. Masson blooms in hotter weather and also in cooler weather than most kinds. At such times this rose is useful if cut before half open and taken indoors.

The noblest outdoor winter rose I have yet seen in Houston is Marie Van Houtte, the bush sometimes growing twelve feet across. Duchesse de Brabant is another fine winter rose here. Good yellow roses are Mme. Jenny Guillemot and Lady Hilingdon, their beauty being enhanced by early cutting. Mrs. Aaron Ward has so far failed with me in growth as to seem nearly

worthless; and all but one of my seven bushes have deliberately died without excuse when other roses around them have grown well; but I shall try again. My one George Dickson was planted last year on March 1, a large and well-rooted bush. By June it had grown five feet and produced immense flowers, from three to five on a stalk, the biggest roses in the garden. By fall it had grown to seven feet.

The best all-round climber in my collection has been Climbing Killarney. The bush Killarney is a great success, which is true of White Killarney, Maman Cochet, Priscilla, and many others. I have seen here striking specimens of Bardou Job. Helen Gould does well in summer on the easterly side of the house, being then lighter in color than in the cool weather and blooming in bunches of from three to five. In quite cool weather this rose usually has only one bud on a stem, which shows large and promising but seldom opens well, if at all.

The odor and color of the southern Marechal Niel are nearly matchless, but the prudish habit of this rose in always hanging his head detracts and is out of keeping with his sex and vigor. The rose which I bought for Climbing American Beauty, advertised by the dealer as having the same fragrance as the bush American Beauty, has no more odor in my garden than grass, while the odor of the real American Beauty is superfine.

Since preparing the above, I have been told that the Houston City Government has just placed an order for 15,000 rose bushes, with which a good showing ought to be made.

The Minneapolis Municipal Rose-Garden at Lyndale Park

By THEODORE WIRTH
Superintendent Minneapolis Parks

THE year 1916 has proved to be the banner year of all the eight years' existence of our rose-garden, regarding display and number of visitors.

Some of the best standard varieties, and, also, a few of the less-known ones, planted originally, could not very well be improved upon and replaced with better ones. They are still in their

prime and do not show any signs of fatigue or deterioration, but prove fair to be good for a few years more before necessitating replanting of the old plants for their rejuvenation or replacing them with young plants.

The main reason for the exceptionally successful season was the cool weather and bountiful rainfall of our spring months, which goes to show what kind of conditions roses are partial to. The months following were rather trying ones, the intense heat raising havoc with the lasting qualities of the blooms, but, luckily, not until after the main season was over.

Quite a number of varieties originally planted which did not come up to the mark were replaced with others that had more desirable points, i. e., hardiness, resistance to disease, healthy foliage, strong growth, and floriferousness. Finding the latter quality more prevalent among the Hybrid Teas, we naturally turned our attention more toward this particular breed, and have found many excellent ones that will withstand our rigorous northwestern climate.

The following varieties have done well with us from the very beginning:

Hybrid Perpetuals.—Captain Hayward, Clio, Frau Karl Druschki, Mrs. John Laing, Tom Wood, Hugh Dickson, Jules Margottin, Prince Camille de Rohan, Heinrich Schultheis, Mrs. R. G. Sharman-Crawford, Ulrich Brunner, Perfection des Blanches, Pride of Waltham, Marie Finger, Marie Bauman, Merveille de Lyon, General Jacqueminot, Alfred K. Williams, Alfred Colomb, Mme. Gabriel Luizet, Baroness Rothschild, Duke of Wellington, Baron de Bonstetten, Robert Duncan, Mrs. George Dickson, Oscar Cordel, J. B. Clark, Mrs. A. M. Kirker, and Alphonse Soupert.

Hybrid Tea Roses.—Gruss an Teplitz, Killarney, La France, Richmond, Kaiserin Augusta Victoria, White Maman Cochet, Pink Maman Cochet, and Souv. du President Carnot.

The following varieties have made very satisfactory substitutes for varieties discarded:

Hybrid Tea Roses.—Mme. Jules Grolez, Mary Countess of Ilchester, General MacArthur, Mrs. Aaron Ward, Mme. Leon Pain, Lady Ashtown, Harry Kirk, White Killarney, and Caroline Testout.

The following three roses have been tested at the Minneapolis Municipal Rose-Garden:

Received from Manda, April 25, 1914: one Bridal Wreath (Cl.), Wichuraiana type; one Dazzling Red (Cl.), Wichuraiana type. Made a fair growth the first year. The former appears to be the stronger of the two and also the hardier, the latter freezing back considerably. Both appear to be quite floriferous, but slow growers.

Received from Cress, Baltimore, May 2, 1914: five Defiance, a cross between Gruss an Teplitz and Etoile de France. They prove to be very free bloomers, but are decidedly weak and slow growers with us and also subject to mildew. They may improve as they grow older and stronger, and we will keep them on for further study.

In My Rose-Garden

By REV. E. M. MILLS, D.D.
President Syracuse Rose Society

EDITOR'S NOTE.—Much the strongest rose society in the United States is the one in Syracuse of which Dr. Mills is the active and energetic president. Attendance during 1916 upon one of the meetings of the Syracuse Rose Society disclosed an admirable condition of interest and a high determination to excel. That this organization has been of great advantage, not only to Syracuse but to rose-growing generally, need hardly be argued; and its continued success is maintained because of the enthusiasm and efforts put forth by the busy Methodist "District Superintendent" who has written the rose appreciation which follows.

DO you see the seven Glory of Petaluma rose bushes that stand out there in the snow in this February storm? They have been my companions for over thirty-five years, and have stood in nine different gardens. Those J. B. Clarks that last summer towered up ten feet with their wealth of bloom were only three inches high when I first planted them one spring day in my garden in Pennsylvania. Some of their five hundred companions were the gifts of prized friends, and some of their former comrades are now in the gardens of my friends.

They have come from many lands. Frau Karl Druschki, Kaiserin Augusta Victoria, Gustav Grünerwald, and Oscar Cordel come from Peter Lambert in Trier, Germany. When this awful war is over that same old rose magician will doubtless

have some great new roses to offer to the rose-lovers of the world.

One day late in autumn, Antoine Rivoire, Caroline Testout, Chateau de Clos Vougeot, Laurent Carle, Mme. Abel Chatenay, Melanie Soupert, Prince de Bulgarie, Beaute de Lyon, Louise Catherine Breslau, Mme. Edouard Herriot, Rayon d'Or, Sunburst, Mrs. Aaron Ward, Willowmere, Constance, Admiral Ward, Mrs. T. Hillas, and Senateur Mascuraud went to sleep in the fields of Pernet Ducher, in Lyons, France, and woke up the next spring in my garden in Syracuse, N. Y. If I had to give up my rose bushes from any country, those from France would be the last I would surrender.

I have another rose bush from Lyons, France—a Mrs. Edmund M. Mills. She stands out in a favored spot in the garden in her great coat of excelsior to protect her from the chilling blasts. And I have another Mrs. Edmund M. Mills, from Ohio, called “Brownie” for short, who makes my home happy and bright this stormy winter’s day! Mme. Second Weber and Primerose came from the Grand Duchy of Luxembourg just before the war began. Alas! I have not heard from Soupert and Notting in over two years.

England and Ireland have been large contributors to my garden. But I am too loyal an American not to have all the American rose bushes I can get. My Maryland, Richmond, Hoosier Beauty, Milady, General MacArthur, Hadley, Radiance, Mrs. Theodore Roosevelt, Francis Scott Key, Rhea Reid, and Dr. W. Van Fleet represent America well in my congress of beauty. But the ancestors of most of my bushes came from far-off Japan and China. British Queen, Kaiserin Augusta Victoria, and La France have no “war of the roses” in my garden. Next June they will be singing with harmonious breath of perfume “The hand that made us is divine!”

Wishing to say something pleasant to me, you tell me that you wish you could have a rose-garden like mine. You can have a better one! But as good old Dean Hole said in his “Book about Roses:” “He who would have beautiful roses in his garden must have them in his heart. He must love them well and always. To win he must woo as Jacob wooed Laban’s daughter, though drought and frost consume.”

I have few roses in winter—“That is the season of my dis-



In the Bobbink & Atkins rose nursery, Rutherford, New Jersey



Block of Killarney and other Hybrid Tea roses grown by Jackson & Perkins Co.

PLATE VII. Acres of American-grown roses. (See page 47)

content"—but for over a third of the year my home is made beautiful and fragrant by the offerings of my rose-garden.

In summer, roses often are my messengers to my friends. They go to the house of mirth and to the house of mourning. My rose-garden has been the door to many of the prized friendships of my life. The rose has been the favorite flower of painters, poets, lovers—and preachers!—and why should not the pastor be an example to his flock in having a well-kept lawn and flower-garden? Next summer, by five o'clock in the morning, some of my neighbors will be making me a morning call to show me an especially fine bloom, or to learn what the new rose I have waited months for looks like. Some hours later, three of my little friends and neighbors, Mason Webb, Adelaide Ayling, and Stewart Graves, appear with their original observations and unanswerable questions, bringing me a hint of that far-off garden of innocence—"eastward in Eden."

How many I have had sweet converse with in my garden have gone to the land of "never withering flowers!" My mother, who taught me to love and grow roses, has long been sleeping peacefully near the Pacific Ocean, but a breath of some old rose brings her to me, and I am again a little boy by her side!

My roses, without expense or danger or weariness, take me to many lands. I find myself by the Crested Moss Rose, sometimes called "Chapeau de Napoleon," and before I know it I am standing, in fancy, with the good old monk who discovered it long ago on the wall of a monastery in France. Here, too, is another rose, named by a Presbyterian minister in North Carolina for his daughter who had gone to the heavenly country.

But you interrupt me to inquire which is my favorite rose, and my dreaming is over! I might tell you that when Rosa shot me she did not use an arrow, but a machine gun! I would be inconsolable without at least the following dozen varieties of Hybrid Teas: Antoine Rivoire, Lady Ashtown, Caroline Testout, Prince de Bulgarie, J. B. Clark, Melanie Soupert, Chateau de Clos Vougeot, Duchess of Wellington, Sunburst, General MacArthur, Laurent Carle, and Mme. Abel Chatenay. No well-regulated family with a little garden spot should be without the following half-dozen Hybrid Perpetuals: Frau Karl Druschki, Prince Camille de Rohan, Captain Hay-

ward, Hugh Dickson, Mrs. R. G. Sharman-Crawford, and Gloire de Chedane Guinoisseau. You say I have already named eighteen kinds? Well, that is enough for a beginner.

When I was a pastor, my roses frequently worshipped with me on Sunday, for not even "the chaste lily" is so beautiful for church decoration. What more beautiful than two rose vases filled, one with Laurent Carle and the other with La France, on either side of the pulpit?

The great English statesman, Temple, and the great American preacher, Beecher, and the great historian, Bancroft, spent their happiest moments in their rose-gardens. Beecher said that "the sweetest thing that God made and forgot to put a soul in is the rose." To that sentiment I say Amen! As a young enthusiastic rosarian I wrote, "I have found forgetfulness from care, rest and quiet for jarred, weary nerves, prized friendships with man and communion with Nature, in my rose-garden." After thirty years, I still say, "All this I most steadfastly believe!"

The National Rose Test-Garden

By F. L. MULFORD
Department of Agriculture

EDITOR'S NOTE.—Undoubtedly the Arlington garden, or more properly the National Rose Test-Garden at Washington, is the most important of the several test-gardens under the supervision of the American Rose Society. It can be made of the greatest value as it matures, if well supported by the members of the Society on the one hand, and if well conducted by the United States Department of Agriculture on the other hand. No member of the Society should fail to visit the garden when in Washington, nor fail also to communicate with the Congressmen from his district in approbation or support. The appropriation for 1916 was not liberal, and the Federal Government has hardly matched the generosity of those who have made this national garden possible. (See picture on Plate VIII, facing page 80.)

DURING the season of 1916 much progress was made with the National Rose Test-Garden as a result of a greater interest on the part of the members of the American Rose Society and other rosarians. There were added to the garden in the spring 303 varieties from 37 contributors. The largest two contributions this year are 99 and 20 varieties respectively, and the largest two previous ones were 151 and 56 varieties.

This year contributions have been received from:

American Nursery Company	New York City.
Bloodgood Nurseries	Flushing, N. Y.
F. & F. Nurseries	Springfield, N. J.
Augustine & Co.	Normal, Ill.
Biltmore Nursery	Biltmore, N. C.
Bobbink & Atkins.	Rutherford, N. J.
A. T. Boddington Co., Inc.	New York City.
Breck-Robinson Nursery Co.	Lexington, Mass.
E. W. Breed	Clinton, Mass.
A. Bryant & Son	Princeton, Ill.
Chase Nursery Company	Chase, Ala.
R. G. Chase Company	Geneva, N. Y.
City Nursery	Redlands, Cal.
John Cook	Baltimore, Md.
Hugh Dickson	Belfast, Ireland
Eastern Nurseries	Jamaica Plain, Mass.
Fremont Nursery	Fremont, Nebr.
Glen Saint Mary Nurseries	Glen Saint Mary, Fla.
Good & Reese Co.	Springfield, Ohio.
W. R. Gray	Oakton, Va.
David Griffith	U. S. Dept. of Agriculture
Gude Brothers	Washington, D. C.
Peter Henderson & Co.	New York City.
E. G. Hill Company	Richmond, Ind.
Hoopes, Bro. & Thomas Co.	West Chester, Pa.
F. H. Horsford	Charlotte, Vt.
Maloney Brothers & Wells Co.	Dansville, N. Y.
Thomas Meehan & Sons	Dresher, Pa.
Wm. H. Moon & Co.	Morrisville, Pa.
New England Nursery Company	Bedford, Mass.
Portland Seed Company	Portland, Ore.
Shatemuc Nurseries	Barrytown, N. Y.
Shenandoah Nurseries	Shenandoah, Iowa.
George C. Thomas, Jr.	Chestnut Hill, Philadelphia, Pa.
J. Van Lindley Nursery Company	Pomona, N. C.
Wagner Park Nursery Company	Sidney, Ohio.
T. B. West	Perry, Ohio.
Coolidge Rare Plant Gardens	Pasadena, Cal.
J. T. Lovett	Little Silver, N. J.

There were in the garden in 1916, 687 varieties of roses representing the following classes:

	Varieties		Varieties
Tea and Hybrid Tea	260	Rugosa	35
Hybrid Perpetual	69	Centifolia and Gallica	29
Moss	15	Species	29
Pernetiana	3	Multiflora and Hybrids	43
China and Bourbon	14	Wichuraiana and Hybrids	53
Lutea	6	Climbing Noisette	10
Brier	16	Climbing Tea	24
Dwarf Polyantha.	31	Miscellaneous other climbers.	38
Miscellaneous	5		
Province	7	Total	687

The arrangement as originally outlined is proving satisfactory. In October the Rugosas were given more room by transplanting every other row. The Bengals, the Bourbons, the Chinas, the Pernetianas, and the Lutea group have each been given a small section to themselves, and additional provision has been made for climbing and pillar roses as the planting-space provided by the fence for these is practically filled. Room has been provided for eighty more varieties of pillar and climbing roses.

A plot has been set aside for the testing of new foreign roses, and another for new American roses. It is hoped this may prove a most useful feature. The members are urged to see that all new roses are forwarded to the garden for trial and comparison. Much can be done by members calling this matter to the attention of either American or foreign growers with whom they may have dealings, especially if they are not members of the Society.

Many of the roses have now been in the garden three summers, and the past season they made a fine showing and gave a good account of themselves. The fence was well covered with bloom, and gives promise for even better results the coming season. The bank about the summer-house is well covered by trailing roses, and the Dr. W. Van Fleet roses on the summer-house extend half-way to the top. Another season should see it completely covered.

The annual meeting of the Rose Society in the garden, on May 23, occurred for a second time under unfavorable weather conditions—a great disappointment to all. Instead of the down-pour of 1915, there was a gentle but steady drizzle which was more depressing than the previous year, if not so wetting. The season, too, was late, so that there were not the blooms open there should have been at that date. The attendance of out-of-town visitors was good, showing the interest that is being taken in the garden.

It is hoped that a date about June 1, 1917, may prove more propitious for the next annual garden meeting.

Interested visitors came in small groups to study the roses every week-day during the season. If possible, the garden will be open on one or two Sundays in 1917 for the benefit of the

many local rose-lovers who find it impossible to get to the garden on a week-day.*

Because the roses were not sufficiently open at the time of the garden meeting, it was considered inadvisable to attempt any judging of them at that time, so it was left until later when Messrs. Adolph Gude, George W. Hess, G. E. Alexander, and F. L. Mulford judged a number of the varieties. The year's experience indicates that arrangements should be made for at least three competent judges to spend a day at the appropriate season judging the bush roses, and a little later the same number of judges would require almost as long with the climbing roses. This should be repeated for at least three years, till accurate records could be made as to the relative value of the roses.

The past year observations were recorded from three times a week early in the season to once a week late in the season on the amount of bloom on the different varieties. Observations were also made on the condition of the foliage and the amount of growth of all the roses in the garden. It is expected to continue this from year to year as supplementary to the annual or semi-annual judging to be provided by the Rose Society.

To date there are but three climbing roses that show any considerable amount of bloom after the first blooming period; these are Birdie Blye (Hybrid Wichuraiana), Mme. Alfred Carriere (Hybrid Noisette), and the McCartney rose, *Rosa bracteata*. The Climbing Hybrid Teas have been planted too short a time to give a true reading on what they may be expected to do.

Of the bush roses the Dwarf Polyanthas have all been continuously in bloom, but there is considerable variation in the amount of foliage held through late summer.

The Rugosas have been more variable, both in continuity of bloom and in the condition of the foliage through the summer. Apparently those varieties nearest the type of the species are most satisfactory in both respects.

The Hybrid Perpetuals have all been vigorous in growth and hardy, but bear practically no blooms after June.

The Teas and Hybrid Teas are variable in the vigor of growth. All of those that have grown well have been satis-

*The Editor cannot refrain from wondering why a *national* rose-garden should ever be closed.

factory. Those that are proving satisfactory so far are Col. R. S. Williamson, Dorothy Page Roberts, Florence Haswell Veitch, Frances E. Willard, Grace Molyneaux, Gruss an Teplitz, Gustav Grünerwald, Isabella Sprunt, Kaiserin Augusta Victoria, Killarney, Killarney Queen, Königin Carola, La Tosca, Lady Ursula, Laurent Carle, Mme. Abel Chatenay, Mme. Camille, Caroline Testout, Mme. Francisca Kruger, Mme. Jules Gravereaux, Mme. Lambard, Mme. Leon Pain, Mme. Paul Euler, Maman Cochet, Marie Lambert, Marquise de Querhoent, Mary Countess of Ilchester, Miss Cynthia Forde, Mrs. A. R. Waddell, Mrs. Herbert Stevens, Mrs. Wakefield Christie-Miller, Papa Gontier, Radiance, Red Letter Day, W. E. Lippiatt, Wellesley, White Killarney, White Cochet.

Among other classes the Hermosa, Archduke Charles, Beauty of Rosemawr, and Champion of the World, have all done splendidly.

If the garden is to fulfil its mission as a test-garden, all members must use their best efforts to see that the commoner existing varieties are supplied at once, and that all new varieties for out-of-door culture be promptly supplied for trial. This part of the work devolves on each and every one. Thanks are due to the many who have so liberally contributed to the garden, and this seems the appropriate place to express those thanks, not as from those who are using their best efforts to make the garden a success, but as from that large body of citizens of the United States who desire the information it should reveal and that will come to depend upon and use it as it is available.

Several of the donations have been from private growers who can gain no commercial advantage from an increased interest in rose-growing. Some roses have been purchased for the garden by the donors, or have been especially propagated for the donors to permit them to supply the garden. The garden can never be considered a success until a large number of amateurs and dealers who are not growers feel sufficient interest in it to want to buy missing varieties and present them to the garden. Let everyone who is interested in promoting rose-growing for the masses, and has not done something for the garden, communicate with the committee at once and learn what is most needed.

The Cornell Rose Test-Garden

By DR. A. C. BEAL, Ithaca, N. Y.

THE Cornell Rose-Garden has made excellent progress during the last year. The original garden has been almost entirely planted, and in addition to this area another of equal size is being prepared. Much has been accomplished in securing records and photographs, even though more attention has been required in caring for the garden because the Department of Floriculture, in common with all departments in the College of Agriculture, has been handicapped for funds to provide the requisite labor. By concentrating on a few lines of work and by a fine spirit of coöperation on the part of the members of the staff, we have succeeded in properly caring for the roses already planted. The extension of the garden will be pushed in 1917 if the necessary appropriations are made.

Last winter the total snowfall at Ithaca was more than sixty-six inches, but the snow does not remain on the ground all winter, and it is very unusual that sleighing lasts more than six weeks. Last March was an unusually cold month, in fact, the coldest weather for that month for twenty years was experienced. There was an unusual amount of snow for the month. One storm gave us seventeen inches in thirty-six hours. While a considerable part of this accumulation melted during the last days of March, the drifts, even in open fields, remained until April 16. The spring was unusually wet and cold, a condition which prevented an exceedingly large number of farmers from sowing oats this year. The climatic conditions during the early part of June were exceptional, for almost continuous light rains which kept the ground in condition to prevent proper cultivation, and at the same time the constant moisture on the leaves, made very favorable conditions for leaf diseases. These conditions prevailed until June 21, when the weather cleared. After July 1 until the latter part of August, a drought prevailed broken only by one good shower on July 20. This drought period was marked by two excessive heat-waves. The first was of short duration, during the latter part of July, when on July 31 the temperature reached 98 degrees. That in August was more severe, for the

maximum temperatures on August 20, 21, and 22 were respectively, 94, 95, and 101 degrees. That this was very unusual here is seen from the fact that the next highest August temperature recorded was 96 degrees on August 31, 1881. This abnormal temperature was followed by rain and a drop in temperature of 37 degrees inside of twenty-four hours. After this the weather was normal. In fact, frost and freezing weather were delayed until later than usual for this latitude. This latter condition has been good for the plants, and we have been enabled to better finish our fall work in the rose-garden than ever before. This is the recital of very unusual weather conditions as we ordinarily have but three or four days when the heat reaches 90 to 95 degrees and persons are uncomfortable.

The American Rose Society and the Syracuse Rose Society visited the garden on June 22. Although it had rained the whole day previous, the day of the visit was a beautiful sunny, though cool, June day. While it was a little wet getting around in the forenoon, the excellent grass paths were firm and the visitors evidently enjoyed their visit. After lunch the party, which taxed the capacity of sixteen large automobiles, left for the rose-garden. Each visitor was provided with a list of the roses in the garden with a key to where the variety was planted. Unfortunately, on account of the continuous cold rains, the flowers were not so far advanced as had been expected when the date of the meeting was published. At the meeting of the American Rose Society, later the same day, it was decided in the future to print and mail the notices from Ithaca so that it would not be necessary to give notice so far in advance.

The Rose-Garden Committee met on June 30 to examine the roses, which were in excellent condition for study. A large number of varieties were examined on this occasion. Under the conditions named, it is important to note the effect of the weather upon the varieties. The buds of the following were so severely injured that only an occasional one opened: Alfred Colomb, Black Prince, Duchesse de Caylus, Leopold Premier, Louis Van Houtte, Maurice Bernardin, Prince Camille de Rohan, and Spenser. Among those less injured were: Caroline de Sansal, Countess of Roseberry, General Washington, Marie Baumann, Mrs. John Laing, and Summer Queen.



Polyantha rose section of the National Rose Test-Garden at Arlington



Section of the Cornell Rose Test-Garden

PLATE VIII. Two important rose test-gardens



The injury to the flower-buds was not the only result of the excessive wet weather, because the black-spot, and possibly other fungi affecting the foliage, developed. American Beauty, Duke of Edinburgh, Eugene Furst, General Jacqueminot, Gloire de Margotten, John Hopper, La Reine, Marie Baumann, and Mrs. John Laing were severely injured. Dr. O'Donel Browne and Oakmont were less severely injured by these fungous troubles.

The most meritorious Hybrid Perpetuals were: Clio, Frau Karl Druschki, Hugh Dickson, J. B. Clark, Jean Liabaud, Mme. Gabriel Luizet, Magna Charta, and Ulrich Brunner. These were the hardiest and strongest growers, free from disease, flowers opened perfectly, best colors, best substance, and most profuse bloomers.

Among the Polyanthas, Baby Elegance, Marie Brissonet, Echo, Jessie, and Phyllis showed foliage injury due to disease and wet weather. The two former were worst affected. Triomphe Orleanais is by far the most vigorous grower in this class. Maman Turbat, Tante Julie, Echo and Mad. Jules Gouchault, among the newer varieties, are commended.

The varieties that appeared to resist drought and heat best in producing flowers after the extreme heat periods were Bessie Brown, Betty, Chrissie MacKellar, Col. R. S. Williamson, Countess of Gosford, Dorothy Page Roberts, Ecarlate, Etoile de France, Farben Königin, Gartendirector Hartrath, George C. Waud, Hector MacKenzie, Hilda Richardson, Königin Carola, Lady Ashtown, Mme. Hector Leuillot, Mme. Jules Grolez, Meteor, Mevrouw Dora van Tets, Milady, Mrs. A. Carnegie, Mrs. Amy Hammond, Mrs. Muir MacKean, Natalie Bottner, Prince de Bulgarie, Pernet's Triumph, Renee Wilmart Urban, Rhea Reid, Robin Hood, Sunburst, Viscountess Folkestone. Some of these were much better than in June of this year, which points toward the probable fact that they require more heat. Among such were Rhea Reid, Robin Hood, Milady, Meteor, Chrissie MacKellar, Hilda Richardson, and Renee Wilmart Urban. There were many other varieties almost as good. The thing which impressed us was the great show of bloom during the long drought when no water could be given. Arrangements have now been far enough completed to overcome such results in the future, but were not ready for last year.

The following Hybrid Perpetuals gave some flowers during August: Baroness Rothschild, Dr. O'Donel Browne, Frau Karl Druschki, George Arends, Gloire Lyonnaise, Gloire de Chedane Guinoisseau, John Hopper, Paul Neyron, Pius IX, Oscar Cordel, Spenser, and Summer Queen.

The earliest Rambler to bloom was Thornless Rambler, which began early in June and was in full bloom June 15 to 25. Aglaia, Euphrosyne and Thalia, Climbing Cecile Brunner, and Dawson, did not begin to flower until June 20 to 22. From this time on until the last days of July we had Ramblers in flower. On June 22, following the severe wind- and thunderstorm of the day before, the following were in good condition: American Pillar, Blush Rambler, Delight, Dorothy Dennison, Eliza Robichon, Excelsa and Hiawatha.

Some of the varieties added this year were: Agathe, Austrian Copper, Alfred de Rougemont, Beaute de Lyon, Betsy van Nes, Bonnie Belle, Carmine Pillar, Centifolia, Centifolia alba, Charles Dingee, Charles Lefebvre, Coronet, Dewdrop, Gloire des Marches, Juliet, Leuchtfeuer, Le Ponceau, Mrs. Lovett, Mrs. R. B. Mellon, Peach Blossom, Primula, Princesse Maria Adelaide, Rayer d'Or, Rothätte, Sargent, Schneewitchen, Souvenir de la Malmaison, Tetonkaha, West Grove, York and Lancaster; also several species.

Among the contributors were Conard & Jones Co., Dingee & Conard Co., Eastern Nurseries, Elliott Nursery Co., R. & J. Farquhar, Good & Reese Co., New England Nurseries, Old Colony Nurseries, and the South Dakota Experiment Station.

The Portland National Rose Test-Garden

By THE EDITOR

THE above title is that adopted for the newest rose test-garden over which the American Rose Society exercises supervision through a suitable committee. It has been established under circumstances of unusual favor, and its establishment is a definite testimony to the way in which the great city of Portland looks upon the rose.

Correspondence was had between the active interested per-

sons and Mr. Robert Pyle, chairman of the American Rose Society's test-garden work, as a result of which a meeting was held January 11, 1917, in the Oregon Building, Portland, Ore., to complete the organization of this test-garden.

There were present two or more representatives each from ninety-nine organizations relating to the civic life of Portland and vicinity. These organizations included the Portland Chamber of Commerce and similar bodies related to the commercial life of Portland, various rose and floral societies, the Portland Rotary Club, Realty Board, Press Club, Women's Club, Transportation Club, Salesmen's Club, Study Club, Research Club, Hunt Club, and other clubs. The local chapter of the American Institute of Architects was represented, together with the Central Labor Council, the City Commissioners, certain local boards of trade, improvement associations, and commercial clubs, as well as many organizations relating to the schools. It is regretted that pressure of space makes it impracticable to print a full list of the organizations participating in this endeavor.

The park authorities of Portland had previously acted in providing a municipal basis for the new test-garden, the organization of which included the adoption of a constitution of an admirable character, providing, among other things, for associate membership in the American Rose Society for such as desired to secure the publications of this Society, and for an honorary membership to compliment those found worthy of that honor. Coöperation between the Executive Committee which was duly appointed, the Department of Parks of the city of Portland, and the American Rose Society was secured by an arrangement for joint meeting of suitable committees.

It is believed that the establishment of this Society and the preparations now going on for the garden which is to result are of the utmost importance, not only to rose-growing in the Pacific Northwest, but to rose-growing over the continent of North America. The plans in hand for this garden provide for locating in it, for test, all available commercial and natural rose varieties, and for carrying forward important work in rose-breeding as well.

The conditions relating to the establishment of this garden are so unique and important that it is deemed worth while to

mention them in the Annual, with the thought that there might be encouragement to other communities to undertake similar important work, in which case communication for details of organization might be had with Mr. F. W. Mulkey, President of the Portland Association National Rose Test-Garden, Mulkey Building, Portland, Ore.

Roses in the Arnold Arboretum

By J. HORACE McFARLAND

NOT very many Americans realize, it is feared, that the Arnold Arboretum, at Jamaica Plain, near Boston, is one of the greatest gardens in the whole wide world. In the temperate zone it can be paralleled only by Kew Gardens, in London. For North America it is incomparably the most notable and important assemblage of plants and trees hardy in the vicinity of Boston.

This institution exists as part of Harvard University, but it has an extraordinary contractual relation with the city of Boston through which its continuance is assured for a thousand years from the date of its actual beginning, some thirty-five years ago, "and so on from time to time forever." No other organized relationship of equally permanent character is known to exist.

To the ability, liberality, and devotion of its Director, Prof. Charles Sprague Sargent, is due the extraordinary value and beauty of the Arnold Arboretum. By the contract, which he arranged, it is always open to all people, and its aim is to provide opportunity for the study of every group of trees and shrubs in the world found hardy upon trial within its bounds.

As an illustration of the scope of the Arboretum, a few words may be taken from the report of the Director to the President of Harvard University for the year which ended June 30, 1916:

"In the last twenty-five years more than two thousand species and varieties of trees and shrubs previously unknown have been added to the Arboretum collections. . . . When the Arboretum was planned, five species and a few hybrids and varieties of lilacs were known; now there are cultivated in the Arboretum twenty-two species and some two hundred distinct

hybrids and varieties. Twenty-five years ago only sixteen American hawthorns were known to botanists; now more than six hundred species are established in the Arboretum. Western China alone has furnished the Arboretum with more species of spruce trees than were known twenty years ago in the whole world. . . . Forty years ago two or three barberries were cultivated in New England; in the Arboretum collection there are now nearly one hundred species, varieties, and hybrids of these plants. . . . This great increase in material is the result of exploration in North America and in eastern Asia, largely carried on by the Arboretum itself. . . . There is still much botanical exploration to be done in this country; and Manchuria, Korea, and western China still offer a field which may be expected to yield richer harvests of new plants. . . . Although great results have already been obtained by the hybridizer . . . this art is really only in its infancy . . . and if exploration and hybridization produce as good results in the next twenty-five years as they have in the past, the number of species and varieties which should have a place in this Arboretum may equal the number it now contains."

Not only is the Arnold Arboretum thus a great living museum of all that is best in hardy plant growth, freely and openly available, but it is as well one of the finest examples of wise and beautiful landscape planting known in the whole world. Its influence in this respect is notable.

It may have been observed from the words quoted above that Professor Sargent draws upon Asia and other parts of the world for new plants. In the same fashion, plants, seeds, grafts, and cuttings are received from and distributed to all parts of the earth continually.

But it is of the rose in the Arnold Arboretum that it is desired now to speak. Nowhere else in America can be found so many rose species as are established and available for study in the Arnold Arboretum. There are growing there now the ninety-eight species and subspecies found in the list here appended:

Rosa abietina.
R. acicularis.
R. acicularis var. *Engelmannii*.
R. acicularis × *R. rugosa*.
R. alba.

Rosa Alberti.
R. amblyotis.
R. arvensis.
R. baicalensis.
R. Bakeri.

- Rosa banksiopsis.*
R. Beggeriana.
R. bella.
R. bella pallens.
R. blanda.
R. canina.
R. canina var. andegavensis.
R. canina var. biserata.
R. canina var. dumetorum.
R. canina var. flexilis.
R. canina var. globosa.
R. cinnamomea.
R. cinnamomea var. fœcundissima.
R. corymbulosa.
R. carolina.
R. caudata.
R. coriifolia.
R. Davidii.
R. Davidii var. elongata.
R. davurica.
R. Ecæ.
R. Fedtschenkoana.
R. ferox.
R. ferruginea.
R. filipes.
R. foetida var. persiana.
R. foliolosa.
R. foliolosa × R. rugosa.
R. gallica.
R. gallica var. centifolia.
R. gallica var. grandiflora.
R. gallica var. muscosa.
R. gallica var. trigintipetala.
R. Gayiana.
R. Gentiliana.
R. glauca.
R. gymnocarpa.
R. Harisonii.
R. Helenæ.
R. heliophila.
R. heliophila var. alba.
R. hibernica var. Grovesii.
R. Hugonis.
R. humilis.
R. Jackii.
R. Jundzillii.
R. kamschatica.
R. Lheritieriana.
R. Manettii.
R. Marretii.
R. micrantha.
R. mollis.
R. Moyesii.
R. Moyesii var. rosea.
- Rosa multibracteata.*
R. multiflora.
R. multiflora var. cathayensis.
R. Murielæ.
R. nitida.
R. nutkana.
R. omeiensis.
R. omeiensis var. pteracantha.
R. omissa.
R. oxyodon.
R. palustris.
R. pendulina.
R. persetosa.
R. pisocarpa.
R. pomifera var. multiplex.
R. Pouzinii.
R. Prattii.
R. Roxburghii.
R. rubiginosa.
R. rugosa.
R. rugosa var. alba.
R. rugosa var. Arnoldiana.
R. rugosa var. Chamissoniana.
R. rugosa var. rubro-plena.
R. saturata.
R. sertata.
R. setigera.
R. setipoda.
R. sicular.
R. spinosissima.
R. spinosissima var. altaica.
R. spinosissima var. cestiflora.
R. spinosissima var. Dominie Samp- [son.
R. spinosissima var. fulgens.
R. spinosissima var. hispida.
R. spinosissima var. Iris.
R. spinosissima var. Jupiter.
R. spinosissima var. King of the Scots.
R. spinosissima var. Lady Baillie.
R. spinosissima var. Plato.
R. spinosissima var. Pythagoras.
R. spinulifolia.
R. Sweginzowii.
R. tuschetica.
R. virginiana.
R. virginiana var. alba.
R. virginiana var. plena.
R. Watsoniana.
R. Webbia.
R. Wichuraiana.
R. Wilmottii.
R. Woodsii.
R. xanthina.
R. xanthina f. normalis.

In addition, Professor Sargent reports the arrival of a large collection of named varieties which "came from the Vilmorin collection at Les Barres and have been grafted for the Arboretum by Chenault, the French nurseryman."

There is thus to be established the beginning of a real hybridized rose collection, which in connection with the study of the natural forms of roses here available ought to be, if the varietal collection can be continued, of the utmost value to rose-growers.

The Editor is impelled to quote here from a personal letter received from Professor Sargent concerning his ideals as to the relation of the Arboretum to roses. Professor Sargent writes:

"If some rich man wants to perpetuate his name in the world of horticulture for at least a thousand years, his chance is to provide the Arboretum with the means to establish a real rose-garden in which all species, varieties, and hybrids, old and new, could be cultivated. There is only one such collection of roses in the world, and that is Gravereaux's, near Paris. Gravereaux is dead, and no one seems to know whether his son will keep up the collection. . . . The cost of the land and construction would be considerable, and maintenance would have to be provided for. This would be large, as it would mean the employment of a first-class man to look after this garden. I do not know who the ambitious man or woman is, but this rose establishment is one of my dreams which I should like to see realized."

What could be finer than the perpetuation through all time of one's name in a living monument that would be of continuous beneficence to mankind?

It will be remembered by those who read the article beginning on page 37 of the 1916 American Rose Annual that E. H. Wilson, the great plant-collector who has made four notable expeditions to western China during the last eleven years, there presented a review of "Some New Roses Introduced by the Arnold Arboretum During the Past Decade." Mr. Wilson is again on the exploring-line, having left early in 1917 for Japan. He will investigate plant possibilities, particularly with reference to roses, first in the Loochoo Islands, and then in Korea, and before the end of this year he hopes to collect material and make photographs in Formosa. Thus the investigations of the Arboretum continue.

It is not only in the living plants that the Arnold Arboretum is of value. Its great Herbarium is also at the service of students. During 1916 alone, 10,447 additional sheets were added to this museum.

One of the notable features of the Arnold Arboretum is its library, in which is housed a rare and extensive collection of botanical reference books in all languages. Every effort has been made, for instance, to obtain every work ever published on the rose. The catalogue of rose publications includes 353 titles. Among them are found nine books emanating from Austria-Hungary, two from the Balkan Peninsula, one from Belgium, forty-two from France, three from Italy and Sicily, two of Russian origin, two from Scandinavia, twelve from Switzerland. Asia is represented by seven titles, and Africa by two. As all these books, many of them very rare, are cross-indexed by the species cited, the rose student has in the Arnold Arboretum an unequalled opportunity.

Professor Sargent is searching now for what he believes is the only important rose book not yet in the library, which is Rossig's "Die Rosen." The Professor adds in his note on this subject: "Mrs. Lawrence's book on roses is probably the rarest of all rose books, and I have heard of only three copies in addition to the one now in this library."

One of the advantages visitors to the Arnold Arboretum observe is found in its use of the native shrubs and trees in the landscape and decorative way. Roses particularly have been turned to this use with remarkable effect. Professor Sargent writes, "Of native roses we have used *Rosa virginiana* and *R. humilis*, and natural hybrids of these two. By far the best, however, is *R. virginiana*, which grows taller than *R. humilis*, has more beautiful and lustrous foliage which late in the autumn turns bright yellow." Plate X, facing page 88, indicates the beauty in bloom-time of one of the rose-decked highways.

I cannot suggest to the earnest rose lover any finer summer pilgrimage than one to the Arnold Arboretum. It may be reached in less than fifteen minutes from the South Station in Boston by numerous trains to Forest Hill Station, which is close by one of the several entrances. Or access is had by the elevated railroad, and by street-cars through Jamaica Plain.



PLATE IX. Native roses for roadside adornment in the Arnold Arboretum. (See page 88)



Rose-Growing in a Northern Latitude

By W. B. BURGOYNE

Mayor of St. Catharines, Ontario

EDITOR'S NOTE.—The Editor well remembers a visit in late June to the charming old town of St. Catharines, not many miles from Niagara Falls, the visit being made notable by the truly wonderful roses then and there blooming in many gardens. He found his host, Mr. Burgoyne, an expert and an enthusiast in rose-growing. Indeed, Mr. Burgoyne is of the true American type—he does things! Having assisted for two years, as its first president, in promoting the great work of the Ontario Horticultural Association, he has also served, continuously also as president for fourteen years in making efficient the efforts of the St. Catharines Horticultural Society. He is represented “at the front” by his son, in command of the 71st Battery, and in the idle moments of his life he also conducts a successful daily newspaper. In the following paper Mr. Burgoyne presents an enviable situation of governmental coöperation and individual interest.

ORDINARILY speaking, in the Province of Ontario, Canada, the growing of roses outdoors might not be expected to command the popular interest which is so manifest on the Pacific coast, in California, Oregon and southern British Columbia. Canada has too often been regarded as “My Lady of the Snows;” but anyone who visits Ontario cities and towns today will find that the cultivation of outdoor roses, even of the tender varieties, is having very rapid and gratifying progress. The ninety-odd horticultural societies of the Province, which are organized into the Ontario Horticultural Association, are vying with each other in making rose-growing among amateurs a most delightful pastime, and the annual rose exhibitions are becoming most popular and pleasing events.

The Ontario Horticultural Association was formed in 1905, with a membership in some sixty horticultural societies of about 4,000. Many of these societies had been in existence for years previously, but mostly as auxiliaries to agricultural societies. With the organization of the Ontario Horticultural Association the societies became divorced from their agricultural brethren, and with a grant of \$8,000 from the Provincial government, divided among them upon a basis of membership and expenditure, new incentives to growth and usefulness were established in the societies. The membership has increased to about 17,000, and it is growing now at the rate of over a thou-

sand a year. The annual provincial grant has been for the past few years \$12,000. Doubtless this would have been increased still more but for the large financial demands upon the provincial treasury because of the necessities of the war.

The maximum grant which any one society may receive is \$800 annually. The annual membership fee in an Ontario horticultural society is \$1. This is supplemented by the provincial grant, averaging 65 cents or 70 cents per member.

Each society distributes among its members plants, vines, bulbs, etc., to about the equivalent of the average government grant, some societies considerably exceeding this. In recent years, with a growing appreciation of the possibilities of rose culture in the Province, some of the societies have made the rose options the leading feature, and the rose features of the June or July exhibitions have been ever expanding.

In the culture of roses, and for successful rose shows, the St. Catharines Horticultural Society (a society which has made "The Garden City" favorably known in the rose-growing world) easily obtained a first place, and it may be said that its annual rose show stands without a rival in any city of Ontario, or of the Dominion. The premium list of this society for 1917 contains ten options of Hybrid Tea and Tea roses, three in each, all different, and an option of four Hybrid Perpetual roses selected from a list of twenty of the best varieties. The membership of the St. Catharines society has ranged from 700 to 1,000 for the past few years, and about one third take rose options. It is expected that from 300 to 400 will select roses this year. Many of these members also purchase other roses.

The St. Catharines Horticultural Society held its first rose exhibition in June, 1904. Each year since has seen an advance over the previous year. The prize list for 1917 will probably consist of eighty sections from the "best and most varied collections" of Hybrid Perpetual and Hybrid Tea roses, in which the winning exhibit will probably consist of not less than seventy-five to one hundred varieties, two flowers of each, down through sections of thirty-six, twenty-four, eighteen, twelve, six, and three varieties, three of each, and many named roses, both Hybrid Perpetuals and Hybrid Teas, climbing roses, etc.

The rose show is one of the features of the year, and the

Horticultural Society, through its option lists and exhibitions, is turning "The Garden City" into a "Rose City." During the latter days of June and the early days of July, the many visitors to St. Catharines are charmed with the beauty of the outdoor displays of roses.

While the St. Catharines Horticultural Society has had pre-eminence for some years in rose culture and rose exhibitions, many sister societies, in other progressive Ontario cities and towns, are making most excellent progress along the same lines. Toronto, Ottawa, Hamilton, St. Thomas, Brantford, Stratford, Chatham, Windsor, Walkerville, Kitchener, Paris, Sandwich, Oshawa, Seaforth, Weston, and other places are communities in which roses count.

The encouragement given by the government of Ontario to the horticultural development of the province through the agency of these societies is having a marvelous effect, which is intensified with each succeeding year. Though in a northern latitude, Ontario cities and towns are already known for their love and successful culture of the Queen of Flowers.

*Wild-rose, Sweetbrier, Eglantine,
All these pretty names are mine,
And scent in every leaf is mine,
And a leaf for all is mine,
And the scent—Oh, that's divine!
Happy-sweet and pungent fine,
Pure as dew and pick'd as Wine.*

—LEIGH HUNT.

The Enemies of the Rose

EDITOR'S INTRODUCTION

Those who are promoting any particular action in which there are possible obstacles have usually before them two courses. All difficulties may be ignored and the unacquainted person permitted to face them as and if they arise, without preparation. Or, difficulties may be recognized, and information provided as to how to meet them.

Rose-growing, it is believed, will be best promoted by frank setting forth as to the diseases and insects which interfere with more or less potency to prevent the completest success. It may not be amiss to pass on the opinion of so great a man as Dr. Bailey of Cornell, that all these diseases and insects have a distinct beneficial influence, in that they enforce care, attention, and culture.

In the 1916 Annual the first complete setting forth in regard to rose diseases and the first complete enumeration of rose insects were presented. Articles found between pages 53 and 67 of that issue, illustrated with some completeness, were and are authoritative and definite. It is not deemed wise to repeat them, but to refer to them as the best source of information, until such time as the American Rose Society shall publish a proper cultural manual.

In common with its timely character, the 1917 Annual presents in the three articles following full information as to further discoveries in certain difficult rose diseases, as to possibilities in their study, and as to some of the more bothersome insects. These articles ought to be read and considered in connection with the articles presented in the 1916 Annual.

Particular attention is again called to the desirability of providing the plant pathologist, now working under the direct promotion of the American Rose Society, with material for the further study of rose diseases. Dr. Massey's article makes the necessary suggestions as to the sending of material, and it is hoped that interested rose-growers will not fail to help efficiently in the supplying of any specimens that are available.

Rose Diseases

By L. M. MASSEY, Ithaca, N. Y.
Plant Pathologist, Cornell University

UNDOUBTEDLY most growers of roses are aware that a special and extensive investigation of the diseases of roses has been undertaken by the Department of Plant Pathology, Cornell University. This work, which is being done in coöperation with the American Rose Society whose members have contributed toward the financial support of the undertaking, was begun August 1, 1916. Good progress has been made.

During the past six months much time has been spent in visiting rose-plantings in northeastern United States, making a survey of diseases. The gardens and greenhouses of about forty

rose-growers have been visited. The number and extent of the diseases present have been noted and specimens secured for further study. Growers have also materially aided the work by sending in specimens. These specimens have been examined and the grower advised as to the cause and control of the disease so far as our present knowledge and experience allows.

Unfortunately, nothing is known concerning the control of many diseases of the rose, and but little concerning even some of the most common diseases. What little is known is mostly inaccessible to the average grower. Every grower who has endeavored to obtain much information upon any rose disease has been brought to a realization of this unfortunate situation. It is for the correction of this condition that members of the American Rose Society have enlisted the services of a plant pathologist to investigate rose diseases.

The preliminary survey has shown that the two most common diseases of the rose are the powdery mildew and the black-spot, both on indoor and outdoor plants. These diseases have received the most attention from growers and pathologists in the past. It has been proved beyond doubt that they are caused by fungi. The life histories of the causal organisms have been partially worked out and various suggestions for control offered. Considerable work remains to be done to determine the conditions which favor the development of these diseases and the best methods of treatment.

However, the survey has revealed the fact that other diseases besides mildew and black-spot cause rose-growers considerable losses. In fact, many greenhouse men claim that these two diseases cause them but little worry.

THE RECENTLY REPORTED ROOT OR CROWN DISEASE OF ROSES

Rose plants affected with a serious root or crown disease have been received from growers and observed by the writer in visits to rose-houses. (This is not the crown-gall disease mentioned on page 100.) The plant is affected just below the surface of the soil, usually where the plant "breaks," the developing branches being encircled by the diseased area. Affected plants appear to be suffering from lack of food or moisture, and in

advanced stages become yellow and of a sickly appearance. The diseased plants die more or less slowly. This condition is caused by the fungus working its way into the conductive tissues of the stem. Affected tissue is usually of a brownish or blackish color and is punky in texture. A slight swelling at the surface of the ground frequently occurs.

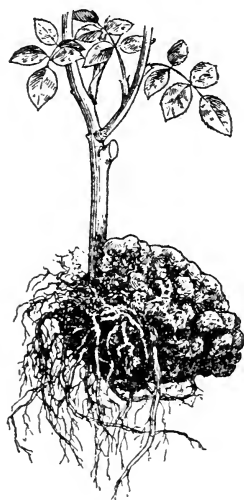


FIG. 6. Crown-gall, a bacterial disease (see page 100).

So far as is known to the writer this disease has never been described. It appears to be caused by a fungus, the life history of which is as yet unknown. Nothing is known concerning the control of this disease, but it is probable that the fungus lives in the soil and that successful treatments will be along the line of soil sterilization and the practice of sanitation in the houses. This disease is considered of such a serious nature that practically all the writer's time at present is being devoted to a study of the life history of the fungus and the development of a method of control. This is necessarily a slow process, but will, it is hoped, result in the discovery of an effective means of controlling the disease.

OTHER ROSE DISEASES

Other diseases which have been observed are: (1) crown-gall, caused by a bacterial organism, affecting the roots and occasionally the stems of both indoor and outdoor roses; (2) *Phyllosticta* leaf-spot, affecting outdoor roses, chiefly Ramblers; (3) other leaf-spots and cane diseases of unknown causes. Work upon the causes of the diseases in this last group is now under way. Extensive experiments for the control of leaf-spot diseases of indoor and outdoor roses are being planned and will be tested as quickly as possible, and reports of progress will be made.

Some misunderstanding seems to exist among growers in regard to sending specimens for examination. Where desired, a postal card will bring to the grower one or more franked tags which will carry specimens by mail, postage free; or the grower

may pay the postage if he so desires. The specimens will be examined and the sender furnished with all available information regarding the cause and control of the disease without incurring any expense. Not only members of the American Rose Society, but rose-growers in general may take advantage of this opportunity to obtain information relating to rose troubles. By sending specimens the grower will not only help himself but will be materially aiding the project. Specimens will always be appreciated, regardless of whether or not they are of a new or old disease, or of economic importance. It is especially desired at this time to obtain rose plants affected with root diseases.

Address all correspondence to L. M. Massey, Department of Plant Pathology, Cornell University, Ithaca, N. Y.

Following is a more or less brief account of the known practical information concerning three important diseases of roses. It is planned to report on three or four other diseases next year, and so on until all available information on rose diseases can be found in the Annual. As new facts regarding the diseases are determined they may be published in succeeding numbers.

POWDERY MILDEW

Caused by the fungus Sphaerotheca pannosa

One of the most common and injurious diseases of roses, wherever they are grown, is powdery mildew. The disease has been known for a long time. It is an especially serious disease of indoor roses, and some outdoor varieties, such as the Crimson Rambler and closely related forms, are seriously injured.

Symptoms.—The first signs of the disease are grayish or whitish spots on the young leaves or shoots. Later the spots have a white powdery appearance, a felt-like coating being commonly found on the stems and thorns, while still later the mildew appearance is lost and the spots show a dark color.

The young leaves, stems and buds are dwarfed, curled and variously deformed by the disease. This deformation and killing of parts of the leaf-surface reduces the foliage, and many of the injured leaves drop. Growth and flower-production is seriously interfered with, often the young buds themselves being attacked by the mildew, rendering the flower-clusters entirely worthless.

Cause.—Powdery mildew is caused by the fungus *Sphaerotheca*

pannosa. An examination of a diseased leaf will show the fungus to consist of slender white mycelial threads with numerous branches which form a network over the surface of the leaf. At various points on the mycelium upright branches arise which bear on their ends chains of minute egg-shaped bodies (spores) which are easily detached. These are known as conidia. In older spots these conidia lie in masses on the surface and give the diseased area its powdery appearance.

When mature the conidia drop from their stalks and are blown about by the slightest currents of air. They are thus carried to other leaves where, under the proper conditions of temperature and moisture, they germinate. The little thread which comes from the spore grows rapidly, branches, and in a few days produces a new crop of spores.

At various points the mycelial threads are attached to the surface of the plant, and minute branches or suckers are sent into the outer cells of leaf or stem from which the fungus obtains its nourishment. Not only is the plant injured in this way, but possibly the felty mass of the fungus also interferes with the vital processes of the leaf through its presence.

These conidia are not long-lived, but another spore-form develops to carry the fungus over long periods unfavorable to the growth of mildew. Somewhat rarely, and chiefly out-of-doors, ascospores are produced in little sacs (asci) within minute dark fruiting bodies (perithecia) embedded in the felt-like mildew on stems and thorns. These ascospores can live over winter out-of-doors, and may serve to start trouble the following spring.

Control.—(a) Outdoor roses. Powdery mildew on outdoor roses may be controlled by dusting with finely ground sulphur. The first application should be made at the first signs of the disease, and subsequent applications made at intervals of about ten days. Spraying with potassium sulphide, one ounce to three gallons of water, or with a solution of ammoniacal copper carbonate,* is held to be effective, but dusting is more effective than spraying and much easier.

*Ammoniacal copper carbonate is made in the proportion of 5 ounces of copper carbonate, 3 pints of ammonia, and 50 gallons of water. The ammonia is diluted in 7 or 8 parts of water, and a paste is made of the copper carbonate with a little water. The paste is added to the diluted ammonia and stirred until dissolved. Enough water to make 50 gallons is added. This mixture loses strength on standing, and should be made as required.



PLATE X. The oldest rose-garden in the United States.
Van Cortlandt Manor, Croton, N. Y. (See page 20)

(b) Under glass. The above methods for the control of powdery mildew on outdoor roses will undoubtedly also control it under glass. However, a more desirable method lies in the use of vaporized sulphur, produced either by boiling sulphur in a pot over an alcohol lamp, or by painting the heating-pipes with equal parts of sulphur, lime, and water. It is a matter of common observation that mildew is most serious in the autumn, and growers would do well to prepare to generate the sulphur vapor at these periods in order to prevent the mildew from becoming established in the house before the heat is started.

BLACK-SPOT

Caused by the fungus Diplocarpon rosæ

Probably the most common and destructive disease of roses is black-spot. Roses grown both out-of-doors and under glass are affected. The disease occurs wherever roses are grown, and has become very severe in certain localities where conditions are favorable to its origin. Nearly all of the cultivated varieties of roses are affected, but not all are equally susceptible. The disease is most destructive during the summer. Affected plants become defoliated prematurely, and leaf-buds which should remain dormant until the next year open late in the season. As a result of this defoliation, the plants may blossom poorly or not at all during the following year. Also, due to the late-season growth, the plants do not enter the winter in a ripened condition and are thus more susceptible to frost-injury.



FIG. 7. Black-spot of rose leaves

Symptoms.—The more or less circular spots on the leaves may reach a diameter of a half-inch or more. They are black in color and are characterized by an irregularly fringed border. The spots occur on the upper surface of the leaf and by confluence may involve the entire surface. Frequently the leaves

become yellow, both in the invaded and uninvaded tissue, although some varieties exhibit little or no yellowing. In either case premature defoliation soon occurs.

Cause.—The black-spot disease of roses is caused by the fungus *Diplocarpon rosæ* (more commonly known as *Actinonema rosæ*). Unlike the powdery mildew fungus, this parasite does not appear on the surface but works underneath the cuticle of the leaf and in the tissues. The black color of the spot is due to the death of the cells of the leaf.

Like the powdery mildew fungus, two spore-forms of the black-spot fungus exist. During the summer small black pustules which are apparent to the naked eye, appear on mature spots. These are the fruits of the fungus. The fruiting bodies arise from the mycelium beneath the cuticle, and in them the spores are born. These spores are blown about by the wind and, falling upon a leaf, germinate under proper conditions of temperature and moisture. The small thread which grows out from the spore bores its way through the cuticle under which it works, branches, and soon establishes itself in the cells beneath. Another spot is thus formed, and soon fruit bodies appear on the surface of the leaf which bear thousands of spores, each of which possesses the potentiality of germinating and producing another spot under proper conditions of temperature and moisture.

The second spore-form (ascospore) develops during the winter. When old diseased leaves fall to the ground in the autumn, carrying the fungus with them, the fungus does not die but lives over winter in the dead and decaying leaf-tissues. Here spores are formed in sacs (asci) produced in small shield- or spherical-shaped bodies called perithecia. These ascospores are discharged from the asci and pile up in whitish masses in the opened perithecia. They are mature by the time the leaf-buds have begun to expand in the spring, and are carried to the newly developing foliage by the wind, where, under proper conditions of temperature and moisture, they germinate and produce infection. Within eighteen days after infection by ascospores a crop of summer spores will develop.

Control.—Two methods should be employed in the control of black-spot: (a) sanitation, and (b) application of fungicides.

Best results will be obtained where the two methods supplement each other.

(a) Sanitation. Since the fungus lives over winter on fallen leaves, where spores are produced which serve as a source of infection in the spring, it follows that these old leaves should be carefully collected and burned, either late in the fall or early in the spring before the buds expand. This refers especially to outdoor roses, as it is probable that winter spores are not formed under glass. However, it is advisable to keep the benches free from old leaves affected with black-spot, for they bear the summer spores and thus serve as sources of infection.

(b) Application of fungicides. Sanitation alone will fail in the control of black-spot, and must be supplemented by the application of fungicides. Present recommendations call for the use of liquid fungicides. It is held that any of the standard copper compounds will give satisfactory results. Bordeaux mixture, especially for roses under glass, is objectionable in that it coats the foliage. A solution of ammoniacal copper carbonate is probably just as efficient and lacks the objectionable discoloring feature of bordeaux mixture. Spraying with these fungicides should be begun before the disease appears and continued throughout the season at intervals of a week or ten days in order to keep the foliage covered with the fungicide.

Some claim to have had good results by the use of a solution of formalin or potassium permanganate, spraying with these fungicides after the disease appears, the theory being that the solution kills the spores of the fungus. However, not enough work of an experimental nature with these solutions has been done to warrant their being here recommended. It is hoped that the efficiency of these solutions can be tested in the near future.

One of the most important points to be investigated concerning black-spot under glass is the relation of temperature and moisture to the development of the disease. It is a matter of common observation that the disease starts during late summer before firing begins, and the severity of the disease during the winter depends largely upon the start made at this time. Some of the most badly diseased houses noted in visits to growers were those where firing was begun late. When the con-

ditions favorable to black-spot are known, a big step will have been taken toward the control of this disease under glass. At present, sanitation is a big factor, and it is the writer's opinion that the severity of this, as well as of other indoor diseases, can be lessened by more strict attention to the heat and moisture requirements of plants in the autumn.

CROWN- OR ROOT-GALL. (NOT THE ROOT DISEASE.)

Caused by Bacterium tumefaciens

This is a very common disease of the rose, both of indoor and outdoor plants. It is the common crown-gall disease of the nursery, affecting many woody plants, trees and shrubs, as well as herbaceous plants. The malady is entirely distinct from, and must not be confused with, the root or crown disease mentioned on page 94. Roses in benches are frequently severely affected. Much interest in recent years has been attached to the study of this disease because of its resemblance to malignant human tumors, with the possibility that light may be thrown on the origin of the latter.

Opinions differ as to just how much damage this disease causes to roses. Skilled gardeners are generally of the opinion that serious injury is done, diseased plants being smaller and bearing less foliage and less vigorous flowers. It seems obvious that the energy used up in the production of galls, which are often large, must be at the expense of the general needs of the plant, resulting in an inferior product. Work is being done at Cornell University which it is hoped will throw some light upon this point.

Symptoms.—Crown-gall exhibits itself in the production of galls or tubercles, usually on the roots or the crowns of the plants, but not infrequently on parts of the plant above ground. The galls are of various sizes, frequently reaching a diameter of several inches.

Cause.—Crown-gall is a bacterial disease caused by *Bacterium tumefaciens*. The bacteria, which apparently must enter the plants through minute wounds, stimulate the development of certain cells in the host plant resulting in the formation of large galls.

These bacteria are able to live in the soil for a considerable

time without losing their virulence. When healthy plants are placed in this infested soil, they are attacked by the bacteria.

Control.—All plants should be carefully inspected for galls before they are set in the benches. All cuttings showing galls should be rejected. Since the bacteria are able to live in the soil, that in which diseased plants have grown should be removed or sterilized by steam before healthy plants are planted in it. When infested soil is removed, the benches should be thoroughly disinfected. The gathering and burning of galls may be of some value. Once a plant is affected, no treatment will cure it.

An Entomologist and His Rose-Garden

By A. D. HOPKINS

Forest Entomologist, Bureau of Entomology, United States Department
of Agriculture

EDITOR'S NOTE.—That a scientific "bug man" can be entirely human is convincingly shown by the paper following. Dr. Hopkins is well known as an authority on the insects which injure trees, particularly in the forest, and some of his friends have been greatly interested in his ingenious method of determining the bloom relations of shrubs; but his interest in roses has not been suspected. The account of his hard fight for rose prosperity ought to encourage those who live in localities less subject to insect attacks; for if he can keep on and succeed, who would have to be vanquished!

IT is said that a shoemaker's family goes barefooted and that an entomologist's garden is a paradise for insects. As a general proposition there may be some truth in it, because the shoemaker must economize on his source of revenue, and the entomologist, like the doctor who is continually prescribing remedies and advising others what to do, may neglect to follow his own advice. It is important, however, that the entomologist should avail himself of any opportunity to make a practical application of his advice to his own trees and plants if for no other reason than to see things from the grower's point of view.

Many years ago the writer had a rose-garden on the home farm and was fairly successful with the old standard Teas and Hybrid Perpetuals, but does not remember that he had any special trouble with insects. When the opportunity was offered to change a hobby of collecting insects into a regular profession, the farm, together with the rose-garden, was entrusted to the

mercies of a tenant, with his dogs, children, and chickens running wild.

The roses, at least some of the more hardy varieties, survived for a time in their struggle against neglect, abuse, and natural enemies. After some twenty years, when the call of the farm could no longer be resisted as a summer home for the family and a place for the entomologist to spend his vacation, there was nothing left of the rose-garden but a memory, with the sod-covered, grave-like beds, and a wild tangle of trumpet-vine and Crimson Rambler, on the site of the tumbled-down summer-house, to mark the place.

The effort to restore, or rather to renew, the rose-garden led to some experience with rose insects and methods of combating them which may be of interest to readers of the Annual.

The site of the old rose-garden was chosen for the new one. The sod was plowed in the fall, and the next spring the clay loam, made loose and mellow by the decomposing sod and enriched by a liberal supply of decomposed cow-manure, gave great promise of luxuriant growth of plants and a bountiful supply of flowers. Two- and three-year plants were secured from two of the principal sources of supply and planted in the regulation way. Then the trouble began! The sod had been thickly infested with white grubs of the May beetle, and contrary to what was to be expected from the usual recommendation to plow in the fall so that the freezing would kill them, they survived. The old as well as the new rose roots proved to them a satisfactory food substitute for the grass roots of the old sod. Consequently the rose plants failed to grow with the expected vigor, began to decline, and, before the cause of the trouble was discovered, were in a bad way. Following the liberal application of ashes, liquid manure, nitrate of soda, and soapy wash-water, some of the plants began to recover; but there was a disappointment in the meager crop of roses the first season.

Next season the paths and borders of the beds were provided with a sod to attract the grubs from the roses, which to a certain extent it succeeded in doing; but the recovery of the plants from the first injury was slow and disappointing. The Climbers around the borders of the garden fared better, because they

were near the more inviting sod of the lawn to which the grubs were attracted.

By the third year the surviving Hybrid Teas and Hybrid Perpetuals began to recover and make vigorous growth, and the Climbers had exceeded all expectations in the amount of surface of fence and arbor covered by them, giving promise of a wealth of bloom. But alas! with the appearing of the leaves and the formation of the first flower-buds, about the first week in May, the May beetles which had developed from the white grubs of the lawn, the surrounding meadows and pastures, came in swarms during the early hours of the succeeding nights, causing the leaves and young buds to disappear like magic, especially from the tops of the Hybrid Perpetuals and the higher-up stems and branches of the Climbers. With the exception of wire or mosquito-bar netting covers for the smaller plants there was nothing to do in defense against these night attacks. It availed nothing to kill a few of the vast horde that was swarming over the country for miles around and feeding on the young leaves of a great variety of trees and shrubs, including the roses.

These beetles continued in numbers until about the last of May, but with their disappearance came the far more destructive enemy, the rose bug or rose chafer. The first appearance of this beetle was about the last days of May and simultaneously with the first opening of the flowers on the Thousand Beauties, or Tausendschön, and when the flowers of the Concord grape were half out to full. A few days or a week later, when the flowers on the old Crimson Rambler plants began to open, the beetles gathered in such numbers as to hide the buds and flowers on which they congregated, and they continued to come like an ever-increasing army of invaders until the Crimson Rambler passed the maximum of its flowering period, about June 21. Then the army began to disappear, and by June 25 only a few dilapidated stragglers remained.

When this invading army appeared it was met with a bombardment of poisoned liquids, odoriferous repellants, contact poisons, etc., but ten or more came to the funeral of every beetle killed! All spraying methods having failed, quarts of the beetles were whipped and shaken into kerosene pans, but with

no apparent diminution in the reinforcements that appeared day after day. The oft-recommended method of covering the plants with netting was entirely impracticable with the climbers, and was not required in the case of the low-growing Teas and Perpetuals. The Tausendschön appeared to be its favorite; consequently the profusion of delicate pink flowers was soon reduced to ragged and dirty ugliness or was covered with, and bending under the weight of, disgusting masses of struggling brownish bodies and tangled legs. The first flowers of the Excelsa suffered a like fate, and when the beautiful buds of the Dr. W. Van Fleet began to open, they too were attacked by the beetles and destroyed before the first petals could unfold. Fortunately, the Hybrid Teas and Perpetuals escaped, evidently on account of the more abundant and attractive climbers. By the time the red, white, and pink Dorothies, Hiawathas, and other later climbers were reaching their prime, the beetles began to disappear, and there was at last a promise fulfilled in the clouds of white and pink, pale and dark crimson, and delicate yellow in unmarred loveliness.

The experience with the rose chafer suggested that, in order to avoid serious trouble from it in localities where its periodical appearance is to be expected, it should be provided with food in the way of a liberal supply of Tausendschön and Crimson Rambler on nearby but more or less hidden fences, high trellises, or posts.

Another beetle which appeared and departed with the rose chafer was the rose-leaf beetle (*Nodonota punctipennis*), a small shiny bluish green beetle which came from the wild roses to cluster on the buds, tender leaves, and in the open flowers of the garden varieties, causing serious damage to all. The beneficial work of this insect in feeding on the root-crown of the troublesome broad-leaf plantain of the lawn is more than overbalanced by its injury to roses. Like the rose chafer, it seemed to be proof against the ordinary sprays, and had to be brushed or shaken into the kerosene pan.

Next in importance were the rose slugs, but they were easily controlled by sprays with nicotine solution, lime sulphur, or lead arsenate when the first evidence of their presence was manifested by the skeletonized spots on the surface of the leaves

caused by one species and the irregular holes in the leaves caused by another.

The aphids were most insistent in their efforts to survive and multiply, and required frequent spraying with nicotine sulphate and soap solutions to keep them in check.

Other minor pests, including mildew and leaf-spot, appeared, but with the lime sulphur, nicotine sulphate, and arsenate of lead sprays for the insects, and flowers of sulphur or the addition of a little formaldehyde to the spraying solutions for the mildew, and the use of bordeaux mixture for the leaf-spot, etc., the foliage and buds were saved from total destruction, and there was some reward in the few buds and flowers that escaped.

The common and cheap tin atomizer was found to be admirably adapted for spraying small plants, but for the climbers and a large garden, some one of the knapsack air-pressure sprayers is essential.

Last autumn a new and much larger rose-garden was started in a new location, one of the purposes of which is to offer facilities for the further studying of insect pests, and for experiments with methods of preventing their troublesome presence and destructive work. Perhaps in a future Annual an account of some further experience may be given.

Following are some formulas which were found to be effective:

Lime sulphur.—To each two gallons of water add one half pint of the 33° Baumé concentrate in summer and one quart in winter.

Nicotine sulphate.—A teaspoonful of 40 per cent in one to two gallons of water; add one half ounce of laundry soap for effective distribution. A teaspoonful of formaldehyde added to each gallon of this mixture helps to check the rose mildew.

Fish-oil soap.—One half pound to two gallons of water for summer use; four pounds to two gallons in winter.

Kerosene emulsion.—One third gallon to two gallons of water for summer use, and one gallon to the same quantity of water for winter use.

Lead arsenate.—One eighth pound of the paste or one sixth pound of the powder to ten quarts of water for leaf-eating insects, or to the same amount of diluted bordeaux mixture for a combination insecticide and fungicide.

Greetings from Abroad

By THE EDITOR

THE National Rose Society of England has long been the model to approximate which those interested in the American Rose Society have aspired. With its large and widespread membership—over 7,000, and in all the civilized countries of the world—its system of stimulating rose shows, its authoritative publications, its very existence proves the deeply seated love for the queen of flowers which we in America are trying to organize into effort for consistent rose betterment.

Successive presidents of the American Rose Society have joined in the promotion in our midst of the ideals of this great English society. The American Rose Annual itself is an evidence of this disposition; and the forthcoming other publications of the Society, including an official catalogue of varieties, a manual of pruning, culture, and protection from insects, are projected upon the excellent work of our British friends.

To arrange for complete understanding and interchange, correspondence has been opened with the Secretary of the National Rose Society. In a letter dated May 5, 1916, Mr. Courtney Page, the Hon. Secretary of the Society, who is also joint editor of the English Rose Annual, writes thus:

"I am in receipt of your favor of April 16, and the same mail brought a copy of the American Rose Annual. Please accept my hearty congratulations for the publication, which must have meant an unusual amount of work. It is indeed a fine volume. . . . I quite agree that the stimulation you have given will largely help toward the obtaining of new members by both societies. English rosarians are very keen, and those to whom I have shown your annual are loud in its praise. . . . We shall be happy to coöperate."

A suitable reply to this communication brought the following response from Mr. Page:

"Your letter of May 24 was placed before my Council at their last meeting, and I was instructed to ask you to be good enough to convey to the members of your Society their hearty appreciation, and to express the hope that everything possible will be done to encourage the friendly feeling between the rosarians of the two great countries."

It has not been recently practicable to secure communications from the great French and German rose-growers.

Cut-Flower Rose-Growing

EDITOR'S INTRODUCTION

Of increasing importance is the growing of roses for the year-round cut-flower demand, sometimes miscalled "forcing" because the plants are kept growing in winter by the aid of artificial heat. To this demand, and to the supply attempted for it, rose-growing in general owes a great part of its present advance.

The Cut-Rose Production of America

By THE EDITOR

ELSEWHERE in the Annual will be found a setting forth of rose importations for the fiscal year ending June 30, 1916.

An attempt to obtain an approximation of the rose plants grown in America has not been successful. In order to obtain, if possible, some idea of the rose cut-flower production of the United States, inquiry was made of a number of representative American and Canadian growers. Not all of these responded, it having been found that a good rose-grower is not necessarily also a good correspondent.

The ten replies received are, however, of much interest, and cover a wide expanse of territory. They are here summarized.

The first question asked was as follows: "*In 1916, did the demand for cut roses equal or exceed the supply furnished throughout the year?*"

Two replies from Canada agree that the supply "scarcely equals the demand," and one grower adds: "The rose trade is in healthy condition." A grower in Atlanta gives similar information to the purport that the supply is not equal to the demand. A fair balance is reported from Philadelphia and from Washington. One large grower for the Chicago market found a satisfactory relation between demand and supply, and one in Cincinnati finds a slight preponderance in supply.

On the other side of the ledger is a report from Pittsburgh that "In normal times the cut exceeded the demand," and an Illinois grower reports "an over-production for about ten months." Averaging the ten replies, it would be fair to say that 1916 was a good year for the cut-flower rose-grower.

The second question was, "*What varieties were favorites in your market in 1916, stating them in order of preference?*"

The replies show that, without question, Ophelia and Mrs. Charles Russell are the leaders in preference. The order in the first choice, counting 100 as the whole, ran as follows: Ophelia, 40; Mrs. Charles Russell, 30; American Beauty, 20; Killarney, 10.

On the second choice the preference ran: Ophelia, 30; Mrs. Charles Russell, 30; Killarney, 20; Sunburst, 10; Mrs. Aaron Ward, 10.

The third choice was scattering, one grower omitting any preference. Of the 90 points Killarney secured 20; American Beauty, 20; Mrs. George Shawyer, 10; Sunburst, 10; Mrs. Charles Russell, 10; Radiance, 10; and Lady Alice Stanley, 10.

It is quite apparent that Killarney is falling from its place of favor, as is American Beauty, and that certain other newer roses are coming up in the list.

The third question was, "*What is the tendency in respect to the color of roses preferred, to the Polyantha types, and to the single roses, naming varieties in your reply, if possible?*"

This question was not properly understood, some growers seeming to think that the only inquiry relating to color was that about the Polyantha roses. It is apparent that, save in one case, Polyanthas have no particular place in the market, though Mignon and Cecile Brunner are mentioned as in demand.

As to color, it is also apparent that pink roses are most in demand, that the light shades in all colors are preferred, and that the modern strongly contrasting colors, as, for instance, Sunburst, are acquiring popularity. Red roses have the last place.

The fourth query was a shot in the dark: "*Can you give any approximate idea of the total number of cut roses handled in your market in 1916? Your best guess will be appreciated.*"

One able, truthful, and competent grower answers very simply "I cannot." The next man, living 250 miles away, answers "11,452,804," which may be true, and may be a joke. Taking all the replies into consideration, it is apparent that few growers have any idea of the actual production of cut-flowers under their own hands and under their own sales, but that a "best guess" can be ventured to the purport that approxi-

mately 200,000,000 cut roses were sold in the United States and Canada last year.

It is hoped another year to secure much more detailed and elaborate returns, and to make from them some deductions as to the trend of this very important trade.

One tendency which careful inquiry has developed is that the introduction of new roses of differing shades, forms, and characteristics of beauty tends to extend the sale and not to divide the patronage with old favorites. One school of growers holds the belief that the more open roses, of the type of Sunburst, Radiance, and Killarney, will continue to be not only the favorites, but the more profitable to grow. Other quite capable growers insist that the many-petaled types, although slower to open, and therefore costing more to grow, will prove more and more advantageous. In the writer's opinion, the tendencies shown in E. G. Hill's latest announcements for 1918 and 1919 indicate that this veteran judge of the market is turning toward the production of many-petaled roses.

“Cut-Flower” Rose-Growing in 1916

By WALLACE R. PIERSON

Past-President American Rose Society

EDITOR'S NOTE.—No one in America is better fitted to set forth present tendencies in the vast business of commercial or “cut-flower” rose-growing than Mr. Pierson. He is actively engaged in creating as well as in supplying the demand for the best roses, and he travels far to see or “scout for” a new rose.

IT IS easy to give a good dog a bad name, and it is easy to give a novelty a hard setback in general popularity. Many of our best varieties have not been understood when first grown by rose-growers, and it takes some unusual event to make the average grower believe that, after all, he might have been more or less wrong. “What has happened in 1916?” you ask me, and I am going to tell you, in an offhand way, some things that have happened, discussing the results that may come from those happenings, and showing, if possible, how easy it is to make mistakes in judgment.

What is a good rose, anyway? There is only one answer by the commercial grower—“Any rose is a good rose if it will

pay." After all, most of us cut-flower growers must make money; there are few of us who may be classed as voluntary charitable institutions. We put in the best we have, and we want something out of it. A variety that makes good is one that will pay the bills and leave a profit. It is easier to tell than to find the "layers" in a flock of chickens, and yet the principle is somewhat the same. Keep records and know! That is good advice.

In 1916 there was a flower show at Philadelphia. It was called a National Flower Show, but, to the rose man, it was the annual meeting and exhibition of the American Rose Society. Basing my opinion on the opinion of those with whom I talked after the show, it seems that Hadley is "some rose." Those who saw this finest of the crimson roses at Philadelphia have something to remember, and credit to Burns, Heacock and Towill is given fully with no fear of overdoing it. The Hadley class was the sensation of the show, and growers have decided that Hadley is worth all the extra care which a good variety needs. It has come into its own. "Montgomery's mistake" was the nickname tacked onto Hadley by those who thought they knew more about roses than the originator of Hadley. It must be a comfort to one who has for years been a careful, painstaking breeder of American-raised seedlings to know that a seedling of his hybridizing ranks today as the finest crimson rose in commerce. Just as Dorrance saved Killarney for the trade, so Burns and Heacock have saved Hadley.

What is the best red rose? That question is asked me very often. There is Milady in the West and Hadley in the East, these two being the leaders in popular favor. Then there is Prince d'Arenberg, the easiest to grow and the hardest to sell; Hoosier Beauty, discounted by Hadley in the markets, but, nevertheless, a favorite as it is easier to handle on the bench. "It isn't as good, but we can grow it," is the general answer.

In 1916 the first Canadian seedling has come to the front—Mrs. Henry Winnett, from John H. Dunlop, being the new contender for a place among the red roses. This is an event worth noting. We have all looked, worked and hoped for American-bred roses, and Canada has responded*.

Ophelia is a standard, and 1916 has marked the first offer-

*See Plate III, facing page 33; also see description, page 39.

ing of Ophelia sports. Rose-pink Ophelia is coming out this spring, to be followed, if we can believe what we see and hear, by a number of Ophelia sports that have merit and distinctiveness. The year 1916 has also brought into prominence many seedlings from Ophelia which, although as yet unnamed, show that this charming variety is a good parent to its offspring.

The year 1916 has seen many commercial ranges changed from carnations to roses, and more changes of similar character are planned for the spring of 1917. The rose industry is on the increase, and to a marked extent. Why is it possible to make this increase, and still have the business profitable? First, the education of the people to buy flowers, and the flower shows have done a mighty work in teaching this love of the beautiful. Another important point is that the number of varieties grown makes for better sales. It gives the people something from which to choose. Roses of twenty years ago were of few varieties, while today the grower may take his choice from a long list of good ones. You, who know roses of the garden, know Lady Pirrie, Lady Alice Stanley, Miss Cynthia Forde and Mme. Paul Euler. Do not be surprised to see these garden favorites on the counters of your florist, for they are grown for cut-flowers under glass.

The year 1916 has seen the decline of the old favorite, American Beauty. I say "American Beauty" without any apology to those who insist that the name is wrong and that the rose is French. It is too late now to revive its maiden name, except on the book of records. "Too many other big roses" is the only reason. Verily, the rose family tree is getting crowded, and our much-worshipped Beauty is slowly being pushed aside.

What I have already written applies largely to the cut-flower grower. For the Rose Society, the big event is the publication of a real rose book, the American Rose Annual. It marks the fulfilment of some of the greatest desires and hopes of those loyal members of our Society who have labored long, for love of the labor, to bring the Society to the point where it will be a guide and inspiration, not only to those who grow cut roses for the almighty dollar, but to the humble householder who tills his garden for the love of what is best and brightest in nature, the most perfect of nature's creations—the rose.

Cut-Flower Rose-Growing in Canada

By JOHN H. DUNLOP, Richmond Hill, Ontario

EDITOR'S NOTE.—The American Rose Society recognizes no such barrier as an international boundary line in promoting rose advance. No one has been more efficient than the writer of this paper, a rose-grower of distinction, in helping to bring about complete unity of thought and action in the use of the rose. He is also a successful rose hybridizer, whose premier introduction is depicted in Plate III, facing page 33, as Mrs. Henry Winnett.

COMMERCIAL rose-growing in Canada, both for cut blooms and for plants, is in a very healthy condition.

The first cut blooms from bench-grown plants date back to 1890 when the first venture was made. Previously what bloom was offered was grown on the climbing varieties, such as Marechal Niel, Gloire de Dijon, Lamarque, and one or two others which would produce an abundance of blooms in the spring, but during the winter were very shy bloomers. Consequently but few roses of local production were offered, and for any event requiring a quantity the American markets had to be drawn on. Frequently in midwinter these markets were not able to supply us, the home markets requiring all that was being produced, which resulted in disappointment. Delays in transit and frozen stock also brought about disappointments that led one or two who were ambitious to supply the home demand to try the system that was being successfully used in the United States of growing young plants on raised benches.

The varieties at that time were not numerous and would hardly compare with the varieties forced today. They included Safrano, Isabella Sprunt, Mme. Hoste, Catherine Mermet, Niphetos, and Bon Silene.

Rose-houses were small, and in most cases were built by the florist himself. About this time that veteran rose-grower, John N. May, advocated the three-quarter-span house, and I can remember what an advance it was considered.

The rose-growing industry in Canada has grown steadily from that small beginning to what it is today, and some of the most progressive growers are to be found on this side of the line, keeping pace with all modern ideas. Some people look on Canada as a country of continued cold, snow, and frost. I can assure readers that this is not the case. We have our winter

season, which is not more severe than other places in the same latitude—frequently less so. We have an ideal spring, summer, and autumn, and as fine outdoor roses are grown here as in any part of the continent. Almost all Ontario towns and even villages have their horticultural societies which have given an impetus to growing roses in the garden.

Also the Ontario Rose Society, which I must not forget, has been instrumental in fostering the love for the rose by holding exhibitions, by issuing an annual report in which valuable information is given, and through the awarding of valuable premiums and medals. This has tended to create a demand for rose plants, for when one in a neighborhood has been successful in growing and blooming roses in the garden, it naturally acts as a lever and inspires others to do likewise.

Some amateurs import their plants, even when they have had success with what could be purchased locally, as the inclination is always to do better and to expand by adding new varieties and increasing the number of plants. There is apparent here a great opportunity for the local florist, and he should be alive to the possibilities of producing and offering those newer varieties that would give the greatest satisfaction. I am safe in saying that in the past ten years the interest taken and the planting of roses as garden flowers has, because of the success that has attended these efforts, increased amateur rose-growing in Ontario three or four hundred fold, and the end is not yet.

TO COMMERCIAL ROSE-GROWERS

The Editor particularly desires information upon the extent and tendencies of cut-flower rose-growing, for publication in assembled form in the 1918 Rose Annual. Answers to the following questions are desired by November, 1917:

Area of glass devoted to rose cut-flowers?

Varieties grown, in order of preference?

For what roses is the demand best?

How many roses were cut in twelve months?

Address American Rose Annual, Harrisburg, Pa.

In Memoriam

JACKSON DAWSON

On August 3, 1916, the death of Jackson Thornton Dawson ended the earthly career of a truly great gardener who had also done real service to the rose-cause of America.

Page 125 of the Annual for 1916 lists ten roses which he had hybridized and introduced within the twenty-four years between the lovely Dawson climber in 1890 and his gorgeous Arnold Rugosa hybrid in 1914. All of these roses are worth while, and several of them are notable. His single rose, Sargent, a Wichuraiana hybrid with Crimson Rambler and Baroness Rothschild, is so exquisitely lovely in form and color that it seems in itself enough to found the fame of the rosarian who produced it.

But Mr. Dawson, as superintendent of the Arnold Arboretum for more than forty years, had other claims to fame in the plant-world. He was an extraordinary propagator, and it was in simple justice that his great chief, Prof. Charles S. Sargent, said of him before his death: "Knowledge and skill he has acquired by patient practice and by loving the things with which he works. Plants seem to respond to affection, and he has that affection in large measure. In addition to the great number of trees and plants he has raised here, no one can tell how many hundreds of thousands he has sent to every part of the United States and to all the countries of Europe."

This love for the plants he handled was well shown one memorable June day when Mr. Dawson went with me to see the marvelous display of laurels then in perfection in the Arboretum. Certain plants he would indicate as having been collected in distant localities, and one magnificent pink kalmia he patted lovingly with his hand as he said of it: "I carried this plant on my back from the hills of Massachusetts twenty years ago."

Jackson Dawson leaves the world enriched in a continuing way because he lived in it.

J. H. McF.

SAMUEL THORNE

Among the first Life-Members of the American Rose Society was Samuel Thorne, of Millbrook, New York, who died in 1916.

Mr. Thorne lived practically all of his lifetime in the neighborhood of his home, which was in the midst of a garden, and thus such as might be expected of a Life-Member of the American Rose Society. He was likewise—as rose-lovers tend to be—a good citizen. An evidence of his feeling toward his own village, as well as toward his parents, was the presenting to the village of Millbrook, in their memory, of a fine public school.

Mr. Thorne lived amid the esteem of his associates and neighbors as a kindly, broad-minded man. B. H.

WILLIAM C. BARRY: AN APPRECIATION

William C. Barry, a former President of the American Rose Society, died at his home in Rochester, N. Y., December 12, 1916, aged sixty-nine years.

The passing of Mr. Barry deserves more than perfunctory mention here because of his intimate connection with the affairs of this Society in the early days of its history.

Mr. Barry was not only a grower of roses in a large way, but he was also an intense lover of them.

The writer of this article, who was intimately associated with Mr. Barry for nearly forty years, can bear witness to the conscientious care he always exercised in the dissemination of a new rose. It was his greatest delight to gather together all the new varieties that showed promise, in order carefully to study their different characteristics. This work was done in the early morning just as the buds were beginning to unfold and were wet with dew. He often remarked that that was the only real time to accurately judge a rose. The loving care with which he gathered the tender blossoms, and his skill in arranging them, was another evidence of his great love and interest for the Queen of Flowers.

He was the author of several pamphlets on the rose which have had wide circulation. He had long been an Honorary Life Member of the National Rose Society of England.

It was not only the rose—of which his knowledge was supreme—that attracted him; his interest extended to all flowers, particularly the peony and lilac, as evidenced by the wonderful collections of these popular flowers which he had formed. All this, too, occurred outside his manifold business interests.

He was a gentleman in all that the name implies. He was also a companionable man, and most democratic. He seemed to take a peculiar delight in meeting people of all degrees in the different walks of life, giving freely of his time and wise counsel.

The death of Mr. Barry leaves a void which it will be difficult to fill, not only in the horticultural world, but in the business world as well, where he was known and esteemed for his high ability and sturdy integrity.

C. J. M.

The following resolutions of esteem and respect were passed at a recent meeting of the American Rose Society:

Resolved, That in deep regret at the death of its former President, William C. Barry, the members of the American Rose Society hereby express to his family and associates their sincere sympathy. As one of the early presidents of this society, Mr. Barry's ability, genial character and personal service did much to establish it. His whole-heartedness, his desire to make the places of the earth where people dwelt better and more beautiful, endeared him to us.

Resolved, That this expression of the feeling of the members of the American Rose Society be placed on record; and, the Secretary is directed to transmit a copy to the family of our deceased President, as a sincere expression of our regret.

BENJAMIN HAMMOND, *Secretary*.

January 27, 1917.

EDWARD MAWLEY, V. M. H.

At the ripe age of seventy-four years there died at his home in Rosebank, Berkhamsted, England, on September 14, 1916, a man whose love and work for roses had given him a high place in the esteem of rose-growers the world over.

Edward Mawley was made President of the National Rose Society of England in 1915, after having served it as Secretary for thirty-seven years. He was thus officially related to this greatest of all rose organizations for all but its first two years.

To Mr. Mawley's zeal and ability may properly be ascribed the wonderful progress of the National Rose Society. He was greatly beloved by his associates.

A Partial List of Roses Introduced in America

Compiled by CHARLES E. F. GERSDORFF
and THE EDITOR

(Corrected in this Second Edition to May 15, 1917)

In the 1916 American Rose Annual there was presented "A Partial List of American Hybridized Roses, with Parentage and Date of Introduction so far as Ascertainable." The roses thus listed were in every case admitted only upon information obtained from the hybridizer or introducer, or from a reliable source. Only hybridized sorts, and not "sports," were listed, and no claim of completeness was made. The listing was under headings for each hybridizer, and not general.

At much expenditure of time and patience, and through much correspondence, Mr. Gersdorff has now covered the whole field of American introductions, both as to seedlings and sports. The Editor has added the roses recorded by the American Rose Society.

While it is believed that the result is more complete than any previously published, no claim for entire accuracy is made. It is insisted that the list has been most carefully compiled, and that there is in consequence here presented the beginning, at least, of an accurate name and origin list.

The carelessness of growers and introducers in relation to names, origin, etc., has been—and is—painfully apparent. Unfortunate duplications appear, even in roses introduced within the present century.

It is expected that this list will serve to prevent further duplications or name similarities, and protest will be made against the registration by the American Rose Society hereafter of any rose under a name already used, or of a rose for which no parentage is given.

Following the list of Abbreviations and the List of Works Consulted are the References used, the numbers preceding which are found following names in the list of varieties, as authorities.

The Editor urges that any omissions or errors be called to his attention, and that makers of trade catalogues adopt the spelling and classification here presented.

ABBREVIATIONS

The abbreviations used are: B. (Bourbon), B.-C. (Bourbon-China), Bengal-C. (Bengal-China), C. (China), Cl. B. (Climbing Bourbon), Cl. H. T. (Climbing Hybrid Tea), Cl. T. (Climbing Tea), D. (Damask), H. Cl. (Hardy Climber), H. D. (Hybrid Damask), H. Mult. (Hybrid Multiflora), H. N. (Hybrid Noisette), H. P. (Hybrid Perpetual), H. Ramb. (Hybrid Rambler), H. Ru. (Hybrid Rugosa), H. T. (Hybrid Tea), H. W. (Hybrid, Wichuraiana), H. W.-Ru. (Hybrid Wichuraiana-Rugosa), Læv. (Lævigata), Mult. (Multiflora), N. (Noisette), Per. (Pernetiana), Poly. (Polyantha), Ramb. (Rambler), Semp. (Semperflorens), T. (Tea), W. (Wichuraiana), A. R. S. (American Rose Society).

LIST OF WORKS CONSULTED

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| A B C of Rose Culture, The, by Edward Mawley. 1897. | Beauties of the Rose, etc., by H. Curtis. 1853. |
| Amateurs' Rose Book, The, by Shirley Hibberd. | Beautiful Roses, etc., by John Weathers. |
| American Rose Culturist, The, by C. M. Saxton. | Book about Roses, A, by S. R. Hole. |
| | Book of Roses, The, by Francis Parkman. 1866. |
| | Book of Roses, The, by Louis Durand. |

- Book of the Rose, The, by Foster-Melliar; edited by Page-Roberts & Molyneux.
 Catalogue de la roseraie de Bagatelle pour l'annee 1913.
 Commercial Rose Culture, by Eber Holmes. Concours international de roses, etc. 1908.
 Cultivated Roses, etc., by T. W. Sanders. 1899.
 Cultural Directions for the Rose, etc., by John Cranston. 6th ed., rev., 1877.
 Cultur, etc., der rosen, by C. Nickels. 1845.
 Die rose, etc., by T. Nietner. 1880.
 England's National Flower, by George Bunyard.
 Histoire naturelle de la rose, etc., by J. L. M. Guillemeau. 1800.
 La rose, etc., by J. L. A. Loiseleur-Deslongchamps. 1844.
 La rose, etc., by Jules Bel. 1892.
 La rose, etc., by L. P. F. A. Chesnel de la Charboulaie. 2d ed., 1838.
 Le livre d'or des roses, by Paul Herriot. 1903.
 Les roses, by H. Jamain. 2d ed., 1873.
 Les roses de l'impératrice, etc., by Jules Graveraux.
 Les roses, etc., by Shirley Hibberd. 1882.
 Les Rosiers, etc., by P. C. M. Cochet. 3d ed., 1909.
 List of Roses, etc., by Brougham & Vaux. 1898.
 New Roses (supplement), by Rose G. Kingsley. 1913.
 Nomenclature of the Rose, etc., by Leon Simon. 1st ed., 1899; 2d ed., 1906.
 Observations sur la nomenclature . . . roses, by J. Vibert. 1824.
 Parsons on the Rose, by S. B. Parsons. 1869. New and rev. ed., 1910.
 Podrome de la monographie . . . roses, etc., by C. A. Thory.
 Rosarum monographia, by John Lindley. Rev. ed., 1830.
 Rose Amateurs' Guide, The, by Thomas Rivers. 11th ed., 1877.
 Rose Book (translation into English), by Julius Hoffman. 1905.
 Rose Book, The, by H. H. Thomas. Reprint of 1st ed., 1914.
 Rose Garden, The, by William Paul. 10th ed., 1903.
 Rose Growing, etc., by J. G. Lockley. 2d ed.
 Rose Growing Made Easy, by E. T. Cook.
 Rose Manual, The, by Robert Buist. 4th ed. 1854.
 Roseraie de l'Hay, Guide, etc. 1910; Nomenclature, etc. 1902.
 Roses and How to Grow Them, by Leonard Barron.
 Roses and Rose Culture, by T. B. Jenkins.
 Roses and Rose Gardens, by W. P. Wright. 1912.
 Roses and Rose-Growing, by Rose G. Kingsley. 1908.
 Roses and Their Culture, by W. D. Prior. 3d ed., 1892.
 Roses, by H. C. Andrews.
 Roses, by H. Darlington. 1911.
 Roses, by Gemen and Bourg of Duchy o Luxembourg.
 Roses, by J. H. Pemberton.
 Roses, by Rafinesque-Schmaltz.
 Rose, The, by H. B. Ellwanger.
 Rose, The, by Henry Shaw.
 Societe nationale d'horticulture de France, Section des Roses, etc. 1912.
 Tea Roses, etc., by F. R. Burnside. 1893.

REFERENCES

The number at the end of each description on the following pages refers to the sources considered in the list below. When two numbers follow, the rose has been described in each of the sources cited.

1. Nomenclature de tous les Noms de Roses, by Leon Simon and P. Cochet. 1899.
2. Beautiful Roses, by John Weathers. 1903.
3. Roses and Rose-Growing, by Rose G. Kingsley. 1908.
4. New Roses, by Rose G. Kingsley. 1913.
5. Societe Nationale d'Horticulture de France, Section des Roses, Les Plus Belles Roses au debut du XX siecle. 1912.
6. Les roses, etc., by Shirley Hibberd. 1882.
7. Parsons on the Rose, by S. B. Parsons. 1869 and 1910.
8. The Book of Roses, by Francis Parkman. 1866.
9. The Amateur Gardeners' Rose Book, by Dr. Julius Hoffman; translation by John Weathers. 1905.
10. The Rose Manual, by Robert Buist. 1854.
11. List of Roses, by Bougham and Vaux. 1898.
12. Concours international de roses nouvelles a Bagatelle. 25 juin, 1908.
13. Catalogue de la roseraie de Bagatelle. 1913.
14. Roses and Their Culture, by W. D. Pryor. 1892.
15. Information obtained from various sources, such as American and foreign catalogues, from American growers by correspondence. From catalogues of California Rose Company, Hugh Dickson, Walsh, Alex. Dickson & Sons, Conard & Jones, Good & Reese, Dreer, Fancher Creek Nurseries, Jackson & Perkins Co., Elliott Nursery, Leedle Floral Co., Howard Rose Co., E. G. Hill Co., and Hoopes, Bro. and Thomas Co. By correspondence from Walsh, Dingee & Conard, Conard & Jones, Farr, Totty, Biltmore Nurseries, Heller Brothers, A. N. Pierson, Inc., McGregor Brothers Co., Hugh Dickson, the Editor of "The Garden," London, England John Lewis Childs, Inc., and R. Witterstaetter.

16. *Roses and How to Grow Them*, by Leonard Barron. 1903.
 17. *The Rose*, by H. B. Ellwanger. Ed. 1892.
 18. Catalogue of W. R. Gray, Oakton, Fairfax Co., Va. 1916.
 19. *Pract. Besch. Rozennaamlijst* . . . Boom-en Plantenbeurs te Boskoop. 1909.
- ADMIRAL DEWEY, H.T. (Taylor, 1899.) Sport from Caroline Testout. 15, 19.
- ADMIRAL EVANS, H.T. (E. G. Hill Co., 1907.) 5, 13. Liberty \times unnamed seedling. 12.
- ADMIRAL SCHLEY, H.T. (Cook, 1901.) Colonel Joffe \times General Jacqueminot. Received Bronze Medal at Pan-American Exposition. 19.
- ALBA RUBRIFOLIA, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) *Wichuraiana* hybrid.
- ALICE ALDRICH, H.Ru. (Conard & Jones Co., 1901.) 15. *R. rugosa* \times Caroline de Sansal. 19.
- ALICE LEMON, H.T. (Hill, 1911.)
- AMERICA, H. Cl. (Walsh.) 14.
- AMERICA, N. (Page, 1859.) Large, fine flower of creamy white. 8, 16.
- AMERICAN BANNER, T. (Cartwright, 1879.) 1, 17. Sport of Bon Silene. 16.
- AMERICAN BEAUTY, H.P. (Bancroft, 1886.) Syn., Mme. Ferd. Jamain. 3, 17, 19. (Field Brothers.) 16.
- AMERICAN BELLE, H.P. (J. Burton, 1893.) Sport from American Beauty. 19.
- AMERICAN PILLAR, H.W. (Van Fleet, 1902; intro. by Conard & Jones Co.) *R. Wichuraiana* \times *R. setigera*. 19.
- AMENA, Læv. (Hockbridge, 1909.) 15.
- ANNA MARIA, *Setigera* type. (Feast, 1843.) 1, 13, 19.
- ANNIE COOK, T. (Cook, 1888.) 1. Seedling from Bon Silene. 17.
- ARCADIA, H.W. (Walsh, 1913.) 15.
- ARNOLD, H.Ru. (Dawson, 1914.) *R. rugosa* \times General Jacqueminot.
- ATLAS, H.T. (Hill, 1903.) 19.
- AUGUSTA, N. (1853.) Sulphur. 1. Seedling from Solfaterre. 8.
- BABETTE, H.Cl. (Walsh, 1908.) 15, 19.
- BALL OF SNOW, H.N. (Henderson, 1887.) White. 1.
- BALTIMORE BELLE, *Setigera* type. (Feast, 1843.) 10, 19.
- BEAUTY OF GREENMONT, *Setigera* hybrid. (Pentland of Baltimore, 1854.) 16.
- BEAUTY OF GREENWOOD. N. 17.
- BEAUTY OF ROSEMAWR, B. (Conard & Jones Co., 1903.) 15, 19.
- BEAUTY OF THE PRAIRIES, *Setigera* type. (Feast, 1843.) 13, 19. Syns., Queen of the Prairies; Prairie Queen. 10.
- BEDFORD BELLE, H.T. (Bedford Flower Company, registered 1916.) 15.
- BELLE AMERICAINE, H.P. (D. Boll, 1837.) 1, 16, 17.
- BIRDIE BLYE, H.W. (Van Fleet, 1904; intro. by Conard & Jones Co.) Helene \times Bon Silene. 19.
- BLUSH MARYLAND, H.T. (Totty, 1912.) 15.
- BLUSH O'DAWN, H.T. (Walsh, 1902.) 13.
- BONNIE BELLE, H. Cl. (Walsh.)
- BRIDE, T. (May, 1885.) 15, 19. Sport from Catherine Mermet. 16.
- BRIDESMAID, T. (Moore, 1892.) 15, 19. Sport from Catherine Mermet. Probably identical with The Hughes. 16.
- BRIGHTON BEAUTY, T. (Originated by Bragg; sent out by May, 1891.) 16, 17.
- BURBANK, Bengal. (Burbank, 1900.) 5. Hermosa \times seedling from Bon Silene. 19.
- BUTTERCUP, Cl.T. (California Rose Company, 1908.) 15.
- CALIFORNIA, H.T. (Howard & Smith, 1916; reg. American Rose Society.)

- CAPTAIN HUDSON, Per. (Kersbargen Brothers, 1911.) 15.
 CARDINAL, H.T. (Cook, 1904.) Liberty × unnamed red seedling. 19.
 CARISSIMA, H.W. (Walsh, 1905.) 15. Seedling of Wichuraiana. 19.
 CAROLINE COOK, T. (Cook, 1871.) Seedling from Safrano. 17.
 CATHERINE BELL. (Bell & Son, 1877.) 17. Doubtless identical with Miss Bell.
 CHAMPION OF THE WORLD, Bengal. (Woodhouse, 1894.) 1.
 CHAMPNEY'S PINK CLUSTER, N. Supposed hybrid of *R. chinensis* and *R. moschata*; raised about 1816 by John Champney, of Charleston, S. C. About 1817 Philip Noisette, of the same city, grew from it a rose which his brother, Louis Noisette, of Paris, distributed as Blush Noisette. 2, 16.
 CHAMP WEILAND, H.T. (Weiland and Risch, reg. A. R. S., 1916.) Sport from Killarney. 15.
 CHARLES GETZ, B. (Cook, 1871.) 17.
 CHARLES WAGNER, H.P. (Van Fleet, 1904; intro. by Conard & Jones Co.) Jean Liabaud × Victor Hugo.
 CHILDS' JEWEL, H.T. (Childs, 1902.) Sport from Killarney. 15.
 CHRISTINE WRIGHT, H.W. (Hoopes, Bro. & Thomas Co., 1909.) Unnamed seedling × Caroline Testout.
 CINDERELLA, H.W. (Walsh, 1909.) 15, 19.
 CLARA BARTON. (Van Fleet, 1898.) Clothilde Soupert × American Beauty. 16.
 CLIMBING AMERICAN BEAUTY, H.W. (Hoopes, Bro. & Thomas Co., 1909.) American Beauty × Marion Dingee × Wichuraiana. 15. Silver Medal A. R. S., 1915.
 CLIMBING BRIDESMAID, T. (Dingee & Conard, —.) Sport. 15.
 CLIMBING CECILE BRUNNER, Poly. (Sport at Riverside, Calif., 1901.) 15.
 CLIMBING CLOTHILDE SOUPERT, Poly. (Dingee & Conard, 1902.) Sport. 19.
 CLIMBING ETOILE DE FRANCE, H.T. (Howard Rose Co., 1915.) Sport. 15.
 CLIMBING FRAU KARL DRUSCHKI, H.P. (Lawrenson, 1906.) Sport. 15, 19.
 CLIMBING GRUSS AN TEPLITZ, H.T. (Storrs & Harrison, 1911.) Sport. 15.
 CLIMBING HELENE GAMBIER, H.T. (California Rose Co. 1911.) Sport. 15.
 CLIMBING HELEN GOULD, H.T. (Good & Reese, 1912.) Sport. 15.
 CLIMBING HUGH DICKSON, H.P. (California Rose Company, 1914.) Sport. 15.
 CLIMBING KILLARNEY, H.T. (Reinberg, 1908.) Sport. 15.
 CLIMBING LA FRANCE, H.T. (Henderson, 1893.) Sport. 1, 3, 19.
 CLIMBING MARIE GUILLOT, T. (Good & Reese, 1897.) Sport. Syns. President Cleveland and Frances Willard. 15.
 CLIMBING METEOR, H.T. Sport. 3.
 CLIMBING MME. WELCHE, T. (Mellen, 1911.) Sport. 15.
 CLIMBING MOSELLA, Poly. (Conard & Jones Co., 1909.) Sport. 15, 19.
 CLIMBING MRS. W. J. GRANT, H.T. (E. G. Hill Company, 1899.) Sport. 15.
 CLIMBING MY MARYLAND, H.T. (Dingee & Conard, 1915.) Sport. 15.
 CLIMBING ORIENTAL, C. (U. S. Department of Agriculture, 1914.) Seedling. 15.
 CLIMBING PAPA GONTIER, T. (Riverside, Cal., 1901.) Sport. 15.
 CLIMBING PERLE DES JARDINS, T. (J. Henderson, 1891.) Sport. 2, 3, 13, 17, 19.
 CLIMBING PINK AMERICAN BEAUTY, H.T. (U. S. Nur. Co., reg. 1914.) 15.
 CLIMBING PINK MAMAN COCHET, T. (Conard & Jones Co., 1915.) Sport. 15.
 CLIMBING RAINBOW, T. (California Rose Company, 1914.) Sport. 15.
 CLIMBING RHEA REID, H.T. (California Rose Company, 1914.) Sport. 15.
 CLIMBING SUNBURST, H.T. (Howard Rose Co., 1915.) Sport. 15.
 CLIMBING WINNIE DAVIS, H.T. (California Rose Company, 1913.) Sport. 15.
 CLIMBING WOOTTON, H.T. (Thos. Butler, 1899.) Sport. 15.

- COLUMBIA, H.W. (Hoopes, Bro. & Thomas Co., 1903.) Unnamed seedling × Caroline Testout.
- COLUMBIA, H.T. (Hill, reg. A. R. S., 1917.) Ophelia × Mrs. George Shawyer.
- COQUINA, H.W. (Walsh, 1909.) 15, 19.
- CORA L. BARTON, N. (Buist, about 1850.) Seedling from Lamarque, N.
- CORNELIA COOK, T. (Cook, 1855.) 15, 19. Sometimes given as Cornelia Koch. (A. Koch, 1855.) Seedling from *Devoniensis*. 17.
- CORONET, H.T. (Dingee & Conard, 1897.) Carmine, 1; white, yellow, 13.
- CRIMSON CHAMPION, H.T. (Cook, 1916.) 15.
- CRIMSON QUEEN, H.T. (Montgomery, 1912.) Liberty × Richmond × General MacArthur.
- CRIMSON ROAMER, H.W. (Manda, 1901.) Bardou Job × Jersey Beauty.
- CUMBERLAND BELLE, MOSS. (Dreer, 1900.) Sport from Princess Adelaide. 19.
- DARK PINK RUSSELL, H.T. (Montgomery, 1916.) Sport. 15.
- DAVID HARUM, H.T. (Hill, 1904.) 3, 19.
- DAWSON, H. Mult. (Dawson, 1890.) *R. multiflora* × Gen. Jacqueminot twice. 19.
- DAWSON'S HYBRID RUGOSA, H. Ru. (Dawson, —.) General Jacqueminot × *R. rugosa*. 15.
- DAWSONIANA, Mult. (Ellwanger, 1901.) 13.
- DAYBREAK, H.W. (Dawson, 1909.) *R. Wichuraiana* × *R. indica carnea*.
- DAYDAWN, H.T. (Heller Brothers, 1909.) 15.
- DEBUTANTE, W. (Walsh, 1902.) *R. Wichuraiana* × Baroness Rothschild. 15, 16, 19.
- DEFIANCE, H.T. (Hill, 1907.) Lady Battersea × Gruss an Teplitz. 19.
- DEFIANCE, H.T. (Kress, registered 1914.) "Cross between Gruss an Teplitz and Etoile de France."
- DELIGHT, H. Cl. (Walsh, 1904.) A. R. S. Cert. of Merit. 15, 19.
- DINSMORE, H.P. (Henderson, 1888.) 1.
- DOROTHY PERKINS, H.W. (Jackson & Perkins, 1902.) *R. Wichuraiana* × Mme. Gabriel Luizet. 9. (1901.) 15.
- DOUBLE LÆVIGATA, Læv. (California, 1900.) 15.
- DOUBLE OPHELIA, H.T. (Hill, reg. A. R. S., 1917.) Ophelia × unnamed seedling.
- DOUBLE PINK KILLARNEY, H.T. (Robert Scott & Son, 1910.) Sport. 15.
- DOUBLE WHITE KILLARNEY, H.T. (Budlong, 1913.) Sport. 15.
- DOUBLE WHITE KILLARNEY, H.T. (Totty, 1914.) Sport. 15.
- DR. KANE, N. (Pentland, 1856.) 16, 17.
- DR. W. VAN FLEET, H.W. (Van Fleet, 1910.) *R. Wichuraiana* × Souv. du President Carnot.
- EASTERN GEM, T. (Conard & Jones Co., 1905.) 19.
- EDWIN LONSDALE, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* × Safrano. 19.
- ELEGANS, Setigera type. (Feast, about 1843.) Syn., Chilicothe Multiflora. 10.
- ELIZABETH ZEIGLER, H.W. (A. N. Pierson, reg. 1917.) Sport of Dor. Perkins.
- ELLA CHATIN, H.T. (Hill, 1909.) 13.
- ELLA MAY, T. (May, 1890.) 5.
- EMPRESS OF CHINA, Bengal. (Jackson & Perkins, 1896.) 5, 15, 19.
- ENCHANTER, H.T. (Cook, 1903.) Caroline Testout × Furon. 19.
- ERSKINE PARK BELLE, W. (Edw. J. Norman; will probably be introduced in 1918.) Sport from *R. Wichuraiana*. 15.
- ETOILE DE FRANCE, JR., H.T. (California Rose Company, 1911.) Sport. 15.
- EVA CORINNE, Setigera type. (Pierce, of Washington, D. C., 185-.) 10.
- EVANGELINE, H.W. (Walsh, 1906.) 15, 19. *R. Wichuraiana* × Crimson Rambler. 12.

- EVERGREEN GEM, H.W. (Manda, 1889.) *R. Wichuraiana* × Mme. Hoste. 19.
- EXCELSA, H.Cl. (Walsh, 1908.) Hubbard Gold Medal, A. R. S., 1914. 15.
- FARQUHAR, H.W. (Dawson, 1903.) *R. Wichuraiana* × Crimson Rambler. 15, 16, 19.
- FLAG OF THE UNION, T. (Hallock & Thorpe.) Sport from Bon Silene. 17.
- FLOWER OF FAIRFIELD, Mult. (Schultheis, 1909.) 13. (1908.) 15. (Ludorf, 1908.) 19.
- *FLUSH O'DAWN, H.T. (Walsh, 1902.) Margaret Dickson × Sombreuil. 19.
- FRANCIS SCOTT KEY, H.T. (Cook, 1913.) Radiance × No. 411 (an unnamed crimson seedling).
- GAINSBOROUGH, Cl.H.T. (Good & Reese, 1903.) Syn., Climbing Viscountess Folkestone, from which it is a sport. 15.
- GARDENIA, H.W. (Manda, 1899.) *R. Wichuraiana* × Perle des Jardins. 19.
- GARNET CLIMBER, H.W. (Van Fleet, 1907.)
- GEM OF THE PRAIRIE, Setigera type. (Burgesse, 1868.) Queen of the Prairie × Mme. Laffay, H.P. 7.
- GENERAL MACARTHUR, H.T. (Hill, 1904.) 19.
- GENERAL ROBERT E. LEE, T. (Good & Reese, 1896.) 15.
- GENERAL VON MOLTKE, H.P. (Bell & Son, 1873.) Seedling from Charles Lefebvre. Inferior. 17.
- GEORGE PEABODY, B. (Pentland, 1857.) 16. Seedling from Paul Joseph. 17.
- GOLDEN GATE, T. (Dingee & Conard, 1892.) 9, 19. Safrano × Cornelia Cook. 5, 9. (Jones of New Orleans, about 1888.) 16.
- GOLDEN GEM, H.T. (Towill, reg. A. R. S., 1917.) Lady Hillingdon × Harry Kirk.
- GOLDEN TROPHY, Cl.T. (California Rose Company, 1914.) 15.
- GREVILLE, Mult. (America, 1900.) Syns., Grevillea and Seven Sisters. 15.
- HADLEY, H.T. (Montgomery, 1914.) Liberty × Richmond, the resulting seedling × General MacArthur. Awarded Gold Medal A. R. S., 1914.
- HANSA, H.Ru. (Iowa Experiment Station, —) 15.
- HARISON'S YELLOW, Brier. (Harison, of New York.) 10, 19. (1830.) 15.
- HELEN GOOD, T. (Good & Reese, 1906.) Sport from Maman Cochet. 15, 19.
- HELEN TAFT, H.T. (U. S. Department of Agriculture, 1913.) 15.
- HENRY IRVING, H.P. (Conard & Jones, 1907.) 19.
- HENRY M. STANLEY, T. (Dingee & Conard, 1879.) 15.
- HIAWATHA, H.Cl. (Walsh, 1904.) A. R. S. First Prize. 15, 16. Crimson Rambler × Carmine Pillar. 19.
- HIGHLAND MARY, H.T. (Dingee & Conard, 1908.) 19.
- HOOSIER BEAUTY, H.T. (F. Dorner & Sons Co., 1915.)
- IDEAL, H.T. (Jacob Becker, 1900.) 15, 19.
- INDIANA, H. T. (Hill, 1907.) 13. Rosalind Orr English × Frau Karl Druschki. 12.
- INTENSITY, H.T. (Dingee & Conard, 1908.) 19.
- ISABELLA GRAY, N. (Gray, 1855.) Seedling from Cloth of Gold or Chromatella. 8, 17.
- ISABELLA SPRUNT, T. (Sprunt, 1866.) 15. Sport from Safrano. 17.
- IVORY, T. (American Rose Company, 1902.) Sport from Golden Gate. 3, 19.
- JAMES SPRUNT, Cl.B. (Sprunt, 1856.) 6, 9. Sport from Agrippina. 17.
- JANE, Setigera type. (Pierce, about 1850.) 1, 10.
- JANICE MEREDITH, Bengal. (Hill, 1903.) Hermosa × La France. 9.
- JERSEY BEAUTY, H.W. (Manda, 1899.) *R. Wichuraiana* × Perle des Jardins. 19.
- JOHN BURTON, W. (Hoopes, Bro. & Thomas Co., 1903.) 15. *R. Wichuraiana* × Safrano. 19.

*Probably identical with Blush o' Dawn, H.T. (Walsh, 1902.) 13.

- J. S. FAY, H.P. (Walsh, 1908.) 15, 19.
 JUBILEE, H.P. (Henderson, 1898.) 1, 19. (1897.) 15. (Walsh, 1897.) Victor Hugo \times Prince Camille de Rohan. 16.
 KALMIA, H.W. (Walsh, 1913.) 15.
 KEYSTONE, Mult. (Dingee & Conard, 1904.) 15, 19.
 KILLARNEY QUEEN, H.T. (J. A. Budlong & Son Co., 1909.) 15.
 KING DAVID, H.T. (California Rose Company, 1910.) 15.
 KING OF THE PRAIRIES, Setigera type. (Feast, 1843.) 1, 10.
 LA DETROIT, H.T. (Hopp, 1904.) 15. Caroline Testout \times Bridesmaid. 19. (P. Breitmeyer's Sons, 1903.) 16.
 LADY BLANCHE, H.W. (Walsh, 1913.) 15.
 LADY CROMWELL, H.T. (A.N. Pierson, Inc., 1912.) Sport My Maryland. 15.
 LADY DOROTHEA, T. (Dunlop, 1898.) 16.
 LADY DUNCAN, Creeper, H.W. (Dawson, 1909.) *R. Wichuraiana* \times *R. rugosa*.
 LADY GAY, W. (Walsh, 1905.) 15, 19. *R. Wichuraiana* \times Bardou Job. 5, 16.
 LADY MARS, Cl.T. (California Rose Company, 1909.) 15.
 LA FIAMMA, H.W. (Walsh, 1909.) 15, 19.
 LANDRETH'S CARMINE, N. (D. & C. Landreth, 1824.) Syn., Carmine Cluster. 10.
 LANSDOWNE, H.T. (Leonard, registered 1914.) 15.
 LE VESUVE, Bengal-C. (Sprunt, 1858.) 3.
 LILLY ITO, Semp. (Hill, 1907.) 19.
 LITTLE SUNSHINE, Poly. (Hybridized by Alexander R. Cumming, Jr.; reg. A. R. S., 1915, by A. N. Pierson, Inc.) *R. multiflora nana* \times Soleil d'Or.
 LITTLE WHITE PET, Poly. (Henderson, 1879.) 1, 13, 19.
 LOS ANGELES, H.T. (Howard, registered A. R. S. 1916.) Mme. Segond Weber \times Lyon Rose. 15.
 LUCILE, H.W. (Walsh, 1913.) 15.
 MADISON, T. (Hentz, 1912.) 15.
 MADONNA, H.T. (Cook, 1908.) 19. Lady Mary Fitzwilliam \times —. 12. Sport from White Lady. 19.
 MAGNAFRANO, H.T. (Van Fleet, 1905; intro. by Conard & Jones Co.) Magna Charta \times Safrano. 19.
 MAID MARION, H. W. (Walsh, 1909.) 15.
 MAID OF HONOR, T. (Hoffmeister, 1899.) Sport of Catherine Mermet. 16, 19.
 MANDA'S TRIUMPH, W. (Manda, 1897.) 3. *R. Wichuraiana* \times a Hybrid Perpetual. 19.
 MARION DINGEE, H.T. (Cook, 1889.) Caserta \times General Jacqueminot. Marechal Niel \times (Pierre Notting \times Safrano). 19.
 MARK TWAIN, H.T. (Hill, reg. A. R. S. 1902.) 5, 13, 19.
 MARSHALL P. WILDER, H.P. (Ellwanger & Barry, 1885.) 15, 16, 17.
 MARY HILL, H.T. (Hill, 1917.) Ophelia \times Sunburst.
 MARY LOVETT, H.W. (Van Fleet, 1915.) *R. Wichuraiana* \times Frau Karl Druschki.
 MARY WASHINGTON, Mult. Said to have been planted by George Washington on his estate at Mount Vernon and named by him in honor of his mother. 18.
 MAUD LITTLE, T. (Dingee & Conard, 1891.) 1.
 MAYFLOWER, T. (Hill, 1910.)
 MAY MILLER, H.T. (Hill, 1910.)
 MAY QUEEN, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) 19. *R. Wichuraiana* \times Mrs. de Graw. 16.
 MILADY, H.T. (Towill, 1913.) Richmond \times J. B. Clark.
 MILKY WAY, H. W. (Walsh, 1909.) 15.
 MINNEHAHA, H.W. (Walsh, 1905.) 15. *R. Wichuraiana* \times Paul Neyron. 5, 16, 19.

- MISS BELL, T. (Int. and date unknown.) 10. See Catherine Bell.
- MISS KATE MOULTON, H.T. (Monson, 1906.) 15. Mme. C. Testout \times La France \times Belle Siebrecht. 19.
- MISS SARGENT, T. (Mackenzie, of Philadelphia, about 185-.) 10.
- MME. BOLL, H.P. (Boll, 1859.) 5, 6, 16, 17.
- MME. BYRNE, N. (Buist, 1850.) 10.
- MRS. CARADORI-ALLAN, Setigera type. (Feast, 1843.) 1, 17.
- MME. TRUDEAUX, H.P. (Boll, 1850.) 1, 17. D. (Boll [?]). 10.
- MONTROSE, H.T. (Cook, 1916.) 15.
- MRS. BAYARD THAYER, H.T. (Waban Rose Cons., reg. A. R. S., 1916.) 15.
- MRS. BELMONT TIFFANY, H.T. (Budlong, 1917; reg. 1917 A. R. S. and intro. by A. N. Pierson, Inc., 1918.) Sport of Sunburst.
- MRS. CHARLES BELL, H.T. (A. N. Pierson, reg. A. R. S. 1917.) Sport of Radiance.
- MRS. CHARLES RUSSELL, H.T. (Montgomery, 1913.) "Mme. Abel Chatenay, Marquise Litta, Caroline Testout, Mrs. W. J. Grant, General MacArthur, and three seedlings resulting from these crosses are all combined to produce Mrs. Charles Russell."
- MRS. CHAS. DINGEE, H.T. (Dingee & Conard, —.) 15.
- MRS. CHAS. GERSDORFF, Cl.H.T. (Gersdorff, reg. A. R. S. 1916.) White Climbing Rose \times Killarney.
- MRS. CLEVELAND, H.P. (Gill, 1897.) 1, 13, 19.
- MRS. DE GRAW, B. (Burgess, 1885.) 16.
- MRS. F. F. THOMPSON, H.T. (Totty, 1915.) 15.
- MRS. HOVEY, Setigera type. (Pierce, about 1850.) 1, 7, 16.
- MRS. J. PIERPONT MORGAN, T. (May, 1895.) 15, 16. Sport from Mme. Cusin.
- MRS. M. H. WALSH, H.Cl. (Walsh, 1911.) Gold Medal of A. R. S., 1911. 15.
- MRS. MOORFIELD STOREY, H.T. (Waban Rose Conservatories, reg. A. R. S. 1915.) General MacArthur \times Joey Hill.
- MRS. OLIVER AMES, H.T. (May, 1902.) 15, 19. Sport from Mme. Cusin. 16.
- MRS. OPIE, T. (Bell & Son, 1877.) 17.
- MRS. PIERCE, Setigera type. (Pierce, about 1850.) 10, 17.
- MRS. POTTER PALMER, H.T. (Breitmeyer, 1909.) 19.
- MRS. ROBERT GARRETT, H.T. (Cook, 1900.) Caserta \times F. E. Verdier.
- MRS. ROBERT PEARY, C.T. (Dingee & Conard, 1898.) Sport from Kaiserin Augusta Victoria. 15.
- MRS. SARAH YEATS, H.T. (Originated and reg. by Yeats, 1916; intro. by A. L. Randall Co., 1917.) 15.
- MRS. THEODORE ROOSEVELT, H.T. (Hill, 1904.) Sport of La France. 19.
- MRS. W. C. WHITNEY, H.T. (May, 1894.) 11, 16.
- MRS. WM. R. HEARST, H.T. (A. N. Pierson, Inc., reg. A. R. S., 1916.) 15.
- MURIEL MOORE, H.T. (Moore, 1916.) Sport of My Maryland.
- MY MARYLAND, H.T. (Cook, 1908.) Madonna \times Enchanter.
- NELMORE, H.T. (Meyers & Santmann, 1916.) 15.
- NEVIA, Setigera type. (Feast, 1843.) 10.
- NEW CENTURY, H.Ru. (Van Fleet, 1900; intro. by Conard & Jones Co.) $\frac{1}{2}$ R. *rugosa* \times Clothilde Soupert.
- NEWPORT FAIRY, H.W. (Gardner; intro. by Roehrs, 1908.) 12, 19.
- NILES COCHET, T. (California, —.) 15.
- NORMA, H.T. (Dingee & Conard, 1904.) 4, 19.
- NORTHERN LIGHT, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) Wichuraiana hybrid. 19.
- OAKMONT, H.P. (May, 1893.) 15, 19.

- OLD BLUSH, N. (Noisette, 1817.) 2.
 OLIVIA, H.T. (Hill, 1907.) 15, 19.
 ORIOLE, H.T. (California Rose Company, 1910.) 15.
 PALLIDA, Setigera type. (Feast, about 1843.) 10, 17.
 PANAMA, H.P. (Hill, 1908.) Paul Neyron \times seedling of Joseph Hill. 5.
 PANAMA, H.T. (Cook, 1913.) Dreuschia \times unnamed pink seedling. Awarded Silver Medal of A. R. S., 1915.
 PAN AMERICA, H.T. (Henderson, 1902.) American Beauty \times Caroline Testout. 19.
 PARADISE, H.W. (Walsh, 1907.) 15, 19.
 PAUL DE LONGPRE, H.T. (Hill, 1906.) 19.
 PEARL QUEEN, W. *R. Wichuraiana* \times Mrs. de Graw. 16.
 PEARL RIVERS, T. (Dingee & Conard, 1890.) 1, 16.
 PERPETUAL MICHIGAN, Setigera type. (Feast, about 1843.) 10. Everblooming Prairie Queen may be a synonym.
 PHILADELPHIA, Ramb. Crimson Rambler \times Victor Hugo. 16, 19. Probably the same as Philadelphia, H.Mult. (Van Fleet, 1904; intro. by Conard & Jones Co.)
 PILLAR OF GOLD, T. (Conard & Jones, 1909.) 19.
 PINK CHEROKEE, Læv. (California, 1887.) *R. laxigata* \times *R. indica*. 15.
 PINK FRAU KARL DRUSCHKI, H.P. (California Rose Co., 1910.) Sport. 15.
 PINK OPHELIA, H.T. (Howard & Smith, 1916.) Sport from Ophelia.
 PINK PEARL, H.W. (Manda, 1901.) *R. Wichuraiana* \times Meteor.
 PINK ROAMER, H.W. (Manda, 1898.) 19.
 PINK SOUPERT, Poly. (Dingee & Conard, 1896.) 1.
 POM POM, H.Cl. (U. S. Dept. Agri., 1915.) Crimson Rambler \times *R. Wichuraiana*. 15.
 PRESIDENT TAFT, H.T. (McCullough, 1908.) 15.
 PRETTY AMERICAN (*Rosa Lawrenceana*). (Boll, 183- or 185-) 10.
 PRIDE OF WASHINGTON, Setigera type. (Pierce, about 185-) 7, 10, 19.
 PRIMROSE, T. (Dingee & Conard, 1908.) 19.
 PRINCESS BONNIE, T. (Dingee & Conard, 1897.) 1. Bon Silene \times Wm. F. Bennett. 19.
 PRISCILLA, H.P. (Henderson, —) Frau Karl Druschki \times unnamed seedling. 5.
 PROF. C. S. SARGENT, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* \times Souvenir d'Auguste Metral. (Not the same as Sargent.) 19.
 PURITY, H.W. (Hoopes, Bro. & Thomas Co., 1917.) Unnamed seedling \times Caroline Testout. Silver Medal of A. R. S., 1915.
 QUEEN BEATRICE, H.T. (Credited to Kramer, 1907, by Good & Reese.) 15. (Dingee & Conard, 1906.) 15.
 QUEEN OF EDGELY, H.P. (Floral Exchange, 1902.) 19. (Floral Exchange, 1897.) Sport from American Beauty. Syn., Pink American Beauty. 15.
 QUEENS SCARLET, Bengal. (Hallock & Thorpe, 1880.) 15, 17.
 RADIANCE, H.T. (Cook, 1908.) Enchanter \times Cardinal. Awarded Silver Medal of A. R. S., 1914. 19.
 RAINBOW, T. (Sievers, 1891.) Sport from Papa Gontier. 3, 19. (Dingee & Conard, 1891.) 2. Sievers was probably the originator.
 RAMONA, Læv. (Dietrich & Turner, 1913.) Sport from Pink Cherokee. Syn., Red Cherokee. 15.
 RED RADIANCE, H.T. (A. N. Pierson, Inc., 1916.) 15.
 REGINA, H.Ramb. (Walsh, 1916.) 15.
 RELIANCE, H.T. (Hill, 1910.) 4, 19. Etoile de France \times Chateau de Clos Vougeot. 15.

- RENA ROBBINS, H.T. (Hill, 1911.) Paul Neyron \times Mme. Jenny Guillemot.
 RHEA REID, H.T. (Hill, 1908.) American Beauty \times red seedling. 12, 19.
 RICHMOND, H.T. (Hill, 1905.) Lady Battersea \times Liberty. 19.
 ROBERT CRAIG, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana*
 \times Beaute Inconstante. 19.
 ROBERT HELLER, T. (Hill, 1911.)
 ROBERT SCOTT, H.T. (Robert Scott & Son, 1901.) 15. Merveille de Lyon \times
 Belle Siebrecht (Mrs. W. J. Grant). 19.
 ROBIN HOOD, H.T. (Hill, 1912.)
 ROSALIE, T. (Ellwanger & Barry, 1884.) Seedling from Marie Van Houtte. 17.
 ROSALIND ORR ENGLISH, H.T. (Hill, 1905.) 3, 15. Mme. Abel Chatenay \times
 Papa Gontier. 19.
 ROSA SPINOSISSIMA HYBRIDA. (Elliott Nursery, —.) 15.
 ROSEMARY, H.T. (Hill, 1907.) 15, 19.
 ROSE PREMIER, H.T. (Hill, reg. A. R. S., 1917.) Ophelia \times Mrs. Charles Russell.
 ROSE QUEEN, H.T. (Hill, 1911.)
 ROSERIE, H. Ramb. (R. Witterstætter, 1917.) Sport from Tausendschön. 15.
 ROYAL CLUSTER, Ramb. (Conard & Jones Co., 1899.) Hermosa \times Dawson. 19.
 RUBY GOLD, T. (O'Connor, 1892.) Sport from a graft of Catherine Mermet
 on Marechal Niel. 16.
 RUBY QUEEN, H.W. (Van Fleet, 1899; intro. by Conard & Jones Co.) *R.*
Wichuraiana \times Queens Scarlet. 16.
 RUGOSA MAGNIFICA, H.Ru. (Van Fleet, 1905; intro. by Conard & Jones Co.)
R. rugosa \times Ards Rover.
 RUSSELL'S COTTAGE, Setigera type. (America, 1900.) 13, 15, 19.
 RUTH VESTAL, Cl.T. (Vestal & Sons, 1903.) Syn., Climbing Bride. 15.
 SANTA ROSA, Bengal. (Burbank, 1900.) 13, 19.
 SARAH ISABELLE GILL, T. (Gill, 1897.) 19.
 SARGENT, H.W. (Dawson, 1910.) *R. Wichuraiana* \times Crimson Rambler \times
 Baroness Rothschild.
 SATISFACTION, N. (California Rose Company, 1915.) 15.
 SEPTEMBER MORN, H.T. (Turner, 1915.) Sport from Mme. Paul Euler. 15.
 SETINA, Cl.B. (Henderson, 1879.) Sport from Hermosa; syn., Climbing
 Hermosa. 9, 17, 19.
 SHEPHERD'S ORIOLE, N. (T. B. Shepherd Company, 1905.) 15.
 SILVER MOON, H.W. (Van Fleet, 1910.) *R. Wichuraiana* \times Cherokee rose.
 SIR THOMAS LIPTON, H.Ru. (Van Fleet, 1900; intro. by Conard & Jones Co.)
R. rugosa \times Clothilde Soupert. 19.
 SNOWBALL, Poly. (Walsh, 1901.) 19.
 SNOWDRIFT, H.Cl. (Walsh.)
 SNOWDRIFT, W. (Smith, 1914.) 15.
 SNOWFLAKE, T. (Strauss & Co., Washington, D. C., 1890.) 15, 17.
 SOUTH ORANGE PERFECTION, W. (Manda, 1899.) 3. (*R. Wichuraiana* \times
 Mad. Hoste. 19.
 SOUV. DE HENRY CLAY, Scotch hybrid. (Boll, 1854.) 17.
 SOUV. OF WOOTTON, H.T. (Cook, 1888.) Bon Silene \times Louis Van Houtte.
 Said to be the first Hybrid Tea rose raised in the United States. 19.
 SPECTACULAR, H.T. (Elliott, 1912.) Syn., Striped Killarney. 15.
 SUMMER JOY, H.Cl. (Walsh, 1911.) 15.
 SUNBEAM, T. (California Rose Company, 1908.) 15.
 SUNSET, T. (Henderson, 1884.) 2, 9. Sport from Perle des Jardins. 9. (1883.)
 16, 19.
 SUPERBA, Setigera type. (Feast, about 1843.) 10, 16, 17.

- SWEETHEART, H.W. (Walsh, 1903.) *Wichuraiana* × *Bridesmaid*. 15, 16, 19.
 SWEET MARIE, H.T. (California Rose Company, 1915.) Sport from Mrs. G. W. Kershaw. 15.
 TENNESSEE BELLE, H.Cl. (America, —.) 15.
 THE OREGON, H.T. (Hill, date not given.) *Liberty* × unnamed seedling. 12.
 THE QUEEN, T. (Dingee & Conard, 1896.) 1, 19. Sport from *Souv. d'Un Ami*. 15.
 THORA, H.T. (Burton, 1914.) 15.
 TRIUMPH, H.T. (E. G. Hill Company, 1906 or 1907.) 3, 13.
 TRIUMPHANT, *Setigera* type. (Pierce, 1850.) 1, 10, 16.
 TROUBADOUR, H. W. (Walsh, 1911.) 15.
 UNCLE JOHN, T. (Thorpe, 1904.) 15, 19.
 UNIVERSAL FAVORITE, W. (Manda, 1899.) 3. *R. Wichuraiana* × *American Beauty*. 19.
 URANIA, H.Cl. (Walsh, 1902.) A. R. S. Special Newbold Fund Prize.
 URANIA, H.P. (Walsh, 1906.) 3. (1905.) Seedling from *American Beauty*. 16.
 American Beauty (Mme. Ferd. Jamain) × *Mme. Rodocanachi*. 19.
 VICK'S CAPRICE, H.P. (Vick, 1893.) 1. (1889.) 15. Sport from *Archduchesse d'Autriche*. 16, 19.
 VIRGINIA, T. (Dingee & Conard, 1894.) 1.
 VIRIDIFLORA, Bengal. (Originated in Baltimore, Md., about 1850.) 10, 19.
 (Harrison, of Baltimore, Md., 1856.) 1. (Rambridge and Harrison, 1856.) 15.
 WABAN, T. (E. M. Wood & Co., 1891.) Sport of *Catherine Mermet*. 16, 19.
 WASHINGTON, Bengal. (D. & C. Landreth, about 1824.) 10.
 WASHINGTON, N. (Stewart, of Philadelphia, Pa., about 185—.) 10, 17.
 W. C. EGAN, H.W. (Dawson, 1900.) *R. Wichuraiana* × *General Jacqueminot*.
 WEDDING BELLS, Ramb. (Walsh, 1906.) 19. Seedling from *Crimson Ramb*. 16.
 WELLESLEY, H.T. (Montgomery, 1904.) *Liberty* × *Bridesmaid*. 16.
 WEST GROVE, H.T. (Dingee & Conard, registered 1914.) *Liberty* × *Kaiserin Augusta Victoria*.
 WHITE COCHET, T. (Cook, 1896.) Sport. 16, 19.
 WHITE DAWSON, H.Mult. (Ellwanger, 1901.) 19.
 WHITE KILLARNEY, H.T. (Waban Rose Conservatories, 1909.) 15, 19.
 WHITE SHAWYER, H.T. (Totty, 1915.) Sport. 15.
 WHITE STAR, H.W. (Manda, 1901.) *Jersey Beauty* × *Manda's Triumph*.
 WINONA, H. Ramb. (Walsh, 1913.) 15.
 WINTER GEM, T. (Childs, 1898.) 15.
 W. R. SMITH, T. (Smith, 1908; intro. by Peter Henderson & Co., 1908.)
 Maman Cochet × *Kaiserin Augusta Victoria*. Syns., *Jeannette Heller*,
 Chas. Dingee, *Maiden's Blush*, and *President Wm. R. Smith*. 4, 15, 19.
 WM. K. HARRIS, W. (Hoopes, Bro. & Thomas Co., 1903.) 15, 19.
 WOODLAND MARGUERITE, N. (Pentland, 1859.) 17.
 W. T. DREER, W. (Hoopes, Bro. & Thomas Co., 1903.) 4, 19.
 YELLOW PRESIDENT CARNOT, H.T. (California Rose Company, 1910.) 15.

The Editor particularly requests information or corrections to aid in making this list accurate. In sending such, correspondents are requested to give exact details, so far as possible.

The Work of the American Rose Society

The Seventeenth Annual Meeting, Philadelphia, March 27, 1916

The convention was held in conjunction with the National Flower Show, in Convention Hall, Broad Street and Allegheny Avenue, and was called to order by President Pennock at 7.30 P. M.

The address of the President and the reports of the Secretary and Treasurer were read as hereafter presented.

Upon motion of Robert Simpson, the following resolutions, after discussion, were unanimously adopted:

WHEREAS, Recognizing the right of the originator or disseminator of new roses to the honor of naming such varieties, and assuring the originators and disseminators of meritorious varieties of the sympathy and hearty cooperation of the American Rose Society, therefore, in view of the confusion, unnecessary duplication and consequent discredit to the trade arising from the renaming of roses, be it

Resolved, That the American Rose Society herewith records its disapproval of the practice of renaming roses, and will not countenance such practice unless done in the interest of simplicity of language, in which event the original name should appear alongside the new name in all catalogue or trade-lists of varieties; and be it further

Resolved, That the Executive Committee be empowered and directed whenever such renaming of roses occurs to publish in the trade papers or other periodicals authoritative information regarding the origin and original name of such renamed variety, and to take such other action to protect the originator as it may deem advisable.

Harry O. May presented the report of the Committee on Grading Cut Roses (Patrick Welch, Frank H. Traendly, S. S. Pennock, Harry O. May), appointed at the last meeting, as embodied in the following standard:

American Beauties: Special, 36 inches or over; fancy, 30 inches or over; extra, 24 inches or over; first, 18 inches or over; second, 12 inches or over; third, shorter.

Other roses: Extra special, 30 inches or over; special, 24 inches or over; fancy, 18 inches or over; extra, 14 inches or over; first, 10 inches or over; second, shorter.

After much discussion, participated in by Messrs. Poehlmann, May, Gude, Elliott, Pierson, Peirce, Reuter, Campbell and President Pennock, the report was referred back to the Committee for further action.

President Pennock called up a letter dated February 26, 1916, written by George C. Thomas, Jr., in regard to a proposed scale of points for judging outdoor roses. The letter and its accompanying scale of points were then read.

After a full statement by Mr. Thomas and discussion by Mr. Pierson, Professor Beal and others, the following resolution was unanimously adopted:

Resolved, That the schedule of points for judging outdoor roses originated by Dr. Robert Huey, George C. Thomas, Jr., and Jesse A. Currey, be referred to the Executive Committee with power to act upon same.

The motion was duly put to the meeting, and unanimously adopted.*

On motion of Mr. Pierson, the selection of a place for next year's meeting was referred to the Executive Committee with power to act.

The election of officers being in order, the following were duly nominated and elected: President, S. S. Pennock; Vice-President, Louis J. Reuter; Treasurer, Harry O. May; Secretary, Benjamin Hammond.

It was announced by the President that there were three vacancies on the Executive Committee to be filled, two by reason of the expiration of the terms of Robert Pyle and J. H. Dunlop, and the third by the resignation of Eber Holmes. These vacancies were filled by the election of Admiral Aaron Ward, E. Allen Peirce, and Robert Pyle.

At the request of the meeting, Admiral Ward addressed it as follows:

Gentlemen: I thank you for this demonstration of your friendship and confidence. It shall certainly be my duty as well as my pleasure to do all that I can to further the interests of the American Rose Society.

Far be it from me on such short—I may say unexpected—notice to make any remarks before such an assemblage as this on any vexed question of planting or blooming or naming of roses or analyses of soil. In such cases, as in some other serious questions that arise in these days, discretion is the better part of rose valor.

But there is one point on which I would like to dwell, particularly as my remarks are being made a matter of record, and that is the amount of personal attention and labor that in my opinion the amateur should devote to his garden.

I remember to this day the disagreeable impression made on me many years ago by an otherwise pretty story that I read in the *American Magazine*. It was about two young girls who lived at home in a suburban village, but who had gone out to a larger and more country resort where they had fallen in with a much older woman, a widow, who under straitened circumstances grew flowers for summer boarders and marketed much of her own product. The young girls, of course, joyfully entered into this work; but they are made to express regret that when they would return home they would be unable to do a like amount of work in their own garden on account of the supposed chance of their losing prestige or social standing. Doubtless those young women represented a type which pictures to itself an English duchess as a sort of supernatural being more or less permanently glued to a ducal throne, and who would no more be seen in public without her coronet on her head than without shoes and stockings on her feet. I wish they could see a duchess that I have the honor of knowing, who, by the way, so far as personal beauty, intellectual gifts, and all the accessories of costume, coronet included, can be everything that is necessary on occasion, and yet I seem to like that duchess best in her roomy garden shoes—I do not dare call them brogans—her fitted corduroy suit, and her old-fashioned sunbonnet, working away in her garden as hard as any of her men. Hers is one of the great show rose-gardens of England, and she toils there as hard as any of her men whenever she gets a chance—and with considerably more intelligence than some of them display.

In like manner some people picture to themselves a French marquise as a sort of a creation that lives in an aroma of perfumed and powdered hair, attired in some wonderful costume of silk and lace. Two years ago I visited a municipal rose-garden in Paris, and in talking over with the head gardener the names of the different gold medal roses there was mentioned the name of the Marquise de Sinety, the gold medal rose of 1907; and the gardener burst out with, "Now there is a great lady who deserves to be the godmother of a great rose. She does all but the heaviest work of her garden with her own hands; why, she even comes and works here!"

In the like line of thought, I have seen one of our American admirals, one of our rattling good ones, standing in full uniform on some ceremonial occasion, make way for a couple of grimy coal-passers dragging some heavy object between them. We attach a great deal of importance in our navy to the question of precedence, more, possibly, than you do on

*The full statement of the proposed schedule for judging outdoor roses will be found in the article, "The Basis of Merit in Roses," on page 43.

shore; but we attach more importance still to the unwritten law which says, "Respect the workman;" that you should respect the toiler and respect also the idea of manual toil.

A man may be rich enough to have a rose-garden of some size and provided with all of the implements and men necessary for its cultivation and its suitable upkeep, in which case the chances are that he cannot give his personal attention to all the details; but what I hope for the amateur is that he in whole or in part shall contribute the labor of his own hands to the work in his garden. Unless he do this, although he may pay for the garden and it may be a very beautiful rose-garden, it will never be *his* garden.

J. H. Dunlop, of Richmond Hill, Ontario, presented a resolution to the effect that the Executive Committee should be increased to nine members, three to retire each year automatically, the object being to enable the Society to elect from its members amateurs who would by their interest and coöperation strengthen the membership of the Society.

According to the By-Laws, this notice of a change in the Executive Committee was requisite in order that action might be taken at the Annual Meeting of 1917.

Mr. Pierson addressed the meeting upon the publishing of the first number of the American Rose Annual, and upon the relation to it of J. Horace McFarland as editor. Continuing, he moved that Mr. McFarland be constituted, in recognition of this work, an Honorary Life Member of the American Rose Society. This motion was unanimously carried.

Upon motion of Mr. Dunlop, it was agreed that hereafter the retiring President of the American Rose Society be elected Director of the Society of American Florists and Ornamental Horticulturists for the ensuing year, or until such time as his successor may be appointed.

Upon motion of Mr. Hammond, a vote of thanks was extended by the meeting to the Pennsylvania Horticultural Society for the use of the vases tendered to the American Rose Society.

President Pennock spoke upon the Dreer rose-garden which was so important a feature of the Show. He called attention to the fact that this was not a competitive exhibit, but a trade exhibit.

Mr. Thomas was then recognized to present a resolution adopted by the judges of the American Rose Society, which was unanimously adopted:

In awarding a gold medal for exhibit of roses by Henry A. Dreer, the judges feel that a special word of commendation should accompany the award.

Never before at any flower show in the United States has such a result been achieved, and the patience and interest required to accomplish this result is worthy of our sincerest appreciation.

The exhibit as arranged deserves the approval of the most artistic, and will surely be a factor in making the Philadelphia Show a success.

PHILIP BREITMEYER,
ALEXANDER B. SCOTT,
GEORGE C. THOMAS, JR.,
Judges

Mr. Pierson brought up the matter of a meeting at Cornell University to inspect the test-garden there during the coming June. Being called upon, Professor Beal, of Cornell, spoke of the condition of the roses, and earnestly invited the Society to make a visit to the garden about June 25, or at such date as should be arranged between Cornell and Syracuse.

Mr. Gude spoke in earnest commendation of the National Test-Garden at the Arlington Farm of the Department of Agriculture, near Washington, urging that more roses be supplied. Among other things, he said, "I would ask that we do everything that we can to make that garden one of the best in the United States. It can be done. The climate and the soil are there; the location is fine. We surely could not have anything better, especially with the United States Government to back it."

Mr. Mulford informed the Society that there were at present 453 varieties in the Arlington garden, and that 219 varieties were promised for this season, there being other varieties desired.

Mr. Pyle moved that the Executive Committee be instructed to arrange dates and announce them for public gatherings, so far as the American Rose Society is concerned, for the inspection of the various test-gardens, so that the dates might not conflict, and that local committees be requested to coöperate. The motion was carried.

President Pennock then requested Dr. Robert Huey, a veteran amateur rose enthusiast, who he said was "probably one of the best amateur rose-growers in this country," to address the meeting. Dr. Huey spoke as follows:

Mr. President and Gentlemen: I do not believe I have anything to say, except that I was most delighted to receive a copy of the Rose Annual through my friend Mr. Scott, and which I believe marks an epoch in the development of the American Rose Society. It is an evidence that the Society has begun to do something which I have been advocating to my friend Mr. Hammond for a great many years. This little book will be most helpful to amateurs. I think the amateur ought to be considered more than he has been in the past, and I believe that this is an indication that the American Rose Society really intends to do, as in fact it has done, some splendid work for the amateur; and the keeping up of this work for a number of years will bring the American Rose Society and the amateur into their proper relation.

The amateur ought to support the American Rose Society, there is no question about that, and there are millions of people in this country who love flowers, who love roses, and who will be ready and willing to help now that you have given them the opportunity. It has been in my mind for some time past, and I hope that all of you gentlemen present tonight will think about it, whether it would not be well for the American Rose Society to organize something like a bureau of information and have a committee regularly appointed who would answer questions for the amateur who is unable to get information of the specific kind that he desires at home.

When I began to grow roses thirty-eight years ago I found it was almost impossible for me to get any information that was at all reliable. I could not get it from growers. The only plants that I could ever find were little bits of things about seven or eight inches high that had to be forced under glass. Those were the only plants that I could get seven or eight years ago. When I went to a garden and saw some good roses I was unable to learn from the owner of the garden what the names of those roses were, and in many cases where they had been obtained. I found that the people who had the information were determined to keep it to themselves; they wanted to excel in rose-gardening and did not want to help anybody else. I am afraid that that spirit has not been entirely eliminated yet. [A Voice: "It is being eliminated."] Yes, it is being eliminated, but not sufficiently so. If the American Rose Society would have a committee to whom questions of that kind could be referred by the members of the Society, do you not see what an encouragement that would be and how it would tend to increase the membership of our Society? Such a committee would draw people to the fountain-head for the information. Many of you have read the questions and answers in the Cornell papers, and the questions that were asked many of them you thought were simply ridiculous. This only shows the need for information on the part of the general public; and if the American Rose Society would appoint some sort of a committee who would do these things it would be the greatest help to the people, and would ultimately be a great help to the American Rose Society.

A motion was then made and carried that the recommendation of Dr. Huey, with respect to the provision of information, be referred to the Executive Committee with power to act.

Mr. Pierson requested leave to make inquiry of Mr. Mulford with respect to the request for roses coming from the National Test-Garden at Arlington, to which Mr. Mulford did make due reply.

No further business offering, on motion, the meeting was adjourned without day.

PRESIDENT PENNOCK'S ADDRESS

We meet in annual session, under most favorable conditions, in conjunction with the Fourth National Flower Show, thus giving the American Rose Society an impetus and uplift that will be far-reaching.

I am going to say to you, and not boastfully either, that the American Rose Society has taken no small part in making this Show the success it is. Every member will, I know, after viewing the plants, cut-flowers, rose-gardens, and other exhibits here, feel it is an honor to be connected with the American Rose Society.

A Show like this creates a love for flowers: flowers from the flower-store in winter; flowers from the garden in the summer; flowers for every flower-lover every day in the year. It is these desires we want to encourage.

For some years the Society has gone along mostly on commercial lines, and as such it has appealed to the commercial man more than to the amateur. The rose industry of this country is large and must not be lost sight of; at the same time the amateur rosarian is becoming more and more of a factor each year. Not only is his work a benefit and an inspiration to the commercial man, but he is popularizing the rose as no other means can or will. The amateur, I feel, is the one we must look mostly to in increasing our membership and bringing the Society more nearly to the level of the National Rose Society of England, which has a membership of over 6,000, and is a flourishing society.

I want to make a strong appeal for the amateur, believing a large membership is the only way we can bring the Society to that state of efficiency which every member, whether active or associate, wishes to attain.

A month ago I had a visit from Dr. Robert Huey about this very amateur business—and, by the way, Dr. Huey ceased being a member of this Society on account of its offering the amateur so little, but I am glad to say he is again with us. He brought with him a letter from Mr. W. E. Davis, a rose enthusiast of New Haven, with a very strong appeal for the amateur in our Society, asking that this matter be taken up in a vigorous manner at our annual meeting.

Publicity.—Along the lines of publicity we are doing all the Society can at this time financially support, and I believe for what money we are spending we are getting splendid results. An increased membership and a better treasury balance will enable us to offer our members more in the way of literature and general rose information, giving them such value that they will feel an increase in associate membership dues in the next few years will be thoroughly justified; so let every member, whether active or associate, strive to help our publicity campaign, to increase the membership and give us a Society worth while.

I note with pleasure that we are having more societies affiliating with us each year. I believe it is only a matter of time when a great many of these affiliated members will want to become either associate or active members.

Should not the secretary of each affiliated society have a voice in the Rose Society the same as an active member? I make this as a recommendation.

These affiliated members will mean new friends that will join with the old in making this Society a tower of strength and make it truly national in scope and character as well as in name.

Another point in publicity. We believe our friends, the rose-catalogue men could be instrumental in bringing in new members in large numbers by making mention of the American Rose Society in their catalogues, setting forth its aims and purposes.

The American Rose Annual.—This year's Rose Annual, which has been so ably edited by J. Horace McFarland, is not only a credit to the Society, but as well a treatise on roses invaluable to every member, both the commercial and amateur rosarian. It will, we are sure, make for new members wherever it goes and add new life to our Society.

Test-Gardens.—The American Rose Society, in establishing test-gardens in various parts of the United States, is working out a feature that will become a most valuable and far-reaching asset to rose-growing. These test-gardens are now firmly established in Washington, in Hartford, at Cornell University (Ithaca, N. Y.), and in Minneapolis.

A committee has been appointed to look after and take charge of each garden. The plan in these test-gardens is to have at least five plants of a kind in the case of Hybrid Teas and Teas, and two of a kind in the case of Climbers, of every known variety that can be obtained.

Accurate records are to be kept as to how they flourish, the amount of bloom, and whatever statistics as to temperature, soil, etc., that may be deemed necessary by the committees in charge.

Anyone contemplating the growing of a certain variety—for instance, in the same climate as Washington—might refer to the appropriate test-garden reports and see how that variety has done; whether it was hardy, whether it was able to stand the hot summer, and so on.

These test-gardens as they are established from time to time in the various cities of the United States and Canada, will make one of the many interesting features fostered by the Rose Society.

Scale for Judging Outdoor Roses.—The official scale of points for judging outdoor roses, as adopted by the Rose Society some years ago, has been thought by some of our rose enthusiasts to be insufficient and not covering the ground completely. Dr. Huey, Jesse A. Currey, and George C. Thomas, Jr., have had some correspondence on this subject, and have made up a scale of points which they consider makes a better scale to judge by, which will later be reported on.

Registration of Roses.—Accurate registration of roses is a very important matter. We can go back only a few years and find incomplete and at times very inaccurate records of roses of American origin. The Department of Agriculture at Washington has under way the compiling of a record of roses of American origin and sports, and with the registration as kept by the American

Rose Society, we believe we will have records better and more accurate than could be gotten together in any other way.

Renaming of Roses.—The renaming of roses, whether of American or foreign origin, is to my mind a very pernicious practice, and one that the American Rose Society is not at all in accord with. With this idea in view, the Society at one of its Executive Committee meetings appointed Robert Simpson, H. O. May, and Robert Pyle, who will make a report at this meeting, and I sincerely hope that you will adopt their report, believing that it will make for the good of the Society and for the good of honorable business.

Plant Pathology.—It has occurred to a number of those interested in roses, particularly those interested in the Society's future, that we should have a department of plant pathology where information could be gotten by the members who are in trouble with diseases of any nature or any character, whether on indoor- or outdoor-grown roses, with advice as to how to handle this disease and how to avoid a recurrence. A great many of the rose-lovers, particularly the commercial men, know how to cure certain diseases, but they do not always know the fundamental principles, or what causes these diseases; if they did know they could probably handle them in very much better shape.

The amateurs also would welcome suggestions as to how to prevent their roses from mildewing, and also how to contest other diseases.

What we would like to do would be to establish a fund to take care of such a department, and do it on a basis so that it would be profitable to every rose-grower in the United States and Canada; and I feel that every rose-grower, if for nothing else, should be a member of the Rose Society in order to help sustain a department of this nature.

There is not a grower in this country but who would give money, and liberally, if he could prevent black-spot, mildew, or any of the many other diseases to which rose plants are subject; and if we had this department on a solid footing we believe it would be only a matter of time when experiments could be made that would eliminate most of the diseases—possibly not *eliminate* them, but remedy them to a great extent. So the department, no matter what it would cost, instead of being an expense would be a saving to the rose business.

This work might be taken up with any of our state agricultural colleges or preferably by the Department of Agriculture, Washington, D. C., and carried on by them in a businesslike manner.

Grading of Cut Roses.—At the annual meeting last year a committee was appointed to look into the grading of roses and the naming of those grades. The committee appointed by President Pierson was S. S. Pennock, P. Welch, and Frank Traendly. H. O. May has been added to that committee, and he will make the report of their recommendation.

In conclusion, I want to add a word of praise for our Secretary, who has labored all these years unselfishly and untiringly with the thought always of what was best for the Society. He has spent time and money for the Society wherever and whenever needed, and has been one of the mainstays of the Society, taking hold of the secretaryship when no one wanted the job and when the Society was almost down and out.

SECRETARY HAMMOND'S REPORT

This is the seventeenth annual meeting of the American Rose Society. It is twelve years since this Society held its last annual meeting in the city of Philadelphia, and in the years which have elapsed since then the development of the American Rose Society as evinced at this time by the exhibition in this convention hall is wonderful. Since our last visit to this city, the Society has been in Boston four times; in Washington, Chicago, Buffalo, and Detroit, once; in New York City, three times.

Our membership varies from year to year. The past year, 1915, we had the pleasure of receiving another Life Member, Mr. R. Witterstaetter. The Life Memberships help us in building up our Permanent Fund, which now reaches the sum of \$3,200. The Annual Members who have paid up for the year at this date are 194, and there are 51 Associate Members.

The rose test-gardens, which began at Hartford, Conn., and now embrace gardens at Washington, Cornell, and Minneapolis, are watched over by special committees appointed by the American Rose Society, and certainly have awakened much practical interest, the bushes to be tested being furnished gratis by rose-growers. Two lots were sent from Europe, one from Kallen & Lunne-mann, of Boskoop, Holland, embracing twenty-nine varieties, 168 plants. These all went to the Cornell garden. Messrs. Hugh Dickson, Ltd., Royal Nurseries, Belfast, Ireland, sent ten each of four varieties. These are for competition in the test-gardens and were divided, half going to Hartford and half to the Washington garden.

Municipal rose-gardens are being pushed in England as things of popular beauty. Under date of January 23, 1916, a letter from Waratsh, England, came to the Secretary saying, "You are far more progressive in America as regards municipal rose-gardens than we are over here, and I should be gratified if you could send me details of any public rose-gardens established in America."

The broadening of the membership of this Society involves a great deal of detail work, and one piece of work that has at last come to pass is the printing in first-class style of the annual report of organization work of the Society in book form, with various essays complimentary thereto. This work of publication involves a greater amount of outgo than hitherto the revenue of this Society warranted, but Mr. J. Horace McFarland assumed the work and risk of cost attending the same, and for this service we are certainly indebted to him. The proportion directly paid for this work by the Society was \$325 and customary postage; beyond this the cost has been paid by advertising receipts, upon an arrangement for equal division of profit or deficit.

For this spring's exhibition the number and value of special prizes contributed by individuals has not before been equaled. All this is clear evidence that our Society is full of vigor, and the gathering together of citizens of our common country in associated work, which tends to bring beauty to the homes of all the people, is to be highly commended.

"A rose for every home, a bush for every garden" is emblematic of peace and beauty from ocean to ocean.

BENJAMIN HAMMOND, *Secretary.*

TREASURER MAY'S REPORT

For Year Ending March 22, 1916

RECEIPTS

Balance on hand March 16, 1915	\$1,208 29
Membership dues	606 52
Advertising	195 88
Special premiums	310 00
Interest on mortgage certificates	150 00
Interest on permanent fund	14 18
Interest on general fund	16 33

\$2,501 20

DISBURSEMENTS

Printing of Annual, stationery, etc.	\$675 75
Prizes awarded	472 50
Medals, engraving, etc.	63 10
General expenses, Secretary, etc.	166 93
A. T. Stearns, premium returned	25 00
Deposit in permanent fund	50 00
	<hr/>
	1,453 28
Balance on hand	1,047 92

\$2,501 20

INVESTMENT ACCOUNT

Westchester & Bronx Title & Mortgage Guaranty Co.	
Three mortgage certificates	\$3,000 00
Summit Trust Co.	
Permanent Fund	200 00
Hubbard Medal Fund	250 00

HARRY O. MAY, *Treasurer.*

The Washington Meeting, May 23, 1916

About thirty members of the American Rose Society gathered at the store of Gude Brothers Company preliminary to a visit to the National Rose Test-Garden at Arlington. Unfortunately the rainy weather made the visit unpleasant, and the season being somewhat backward, the roses were not in good order for judging.

After a delightful visit to "Twin Oaks," where the party was conducted over the great estate by Mr. Anderson, the Superintendent, most of the members gathered at lunch at the Hotel Raleigh as the guest of Gude Brothers. A meeting of the Society was organized with President Pennock in the chair.

Telegrams of regret at their absence were sent to Secretary Hammond, and to Theodore Wirth.

Robert Pyle explained the important coöperation given to the Test-Garden Committee by William F. Gude, the representative at Washington of that com-

mittee, and after a rising vote of thanks had been given to Mr. Gude, the latter responded in a few pleasant words.

J. Horace McFarland spoke of the desirability of getting in closer touch with the National Rose Society of England, and of emulating its activities in publication, in exhibitions, and in the extension of membership. He also referred to the extreme importance of securing for the American Rose Society the services of a pathologist who might undertake the study of rose diseases. He called attention to the fact that as yet there had been no orderly study made of rose diseases in the United States, if in the world.

F. L. Mulford urged that the Executive Committee should provide for the expense of transporting the roses which Pacific Coast growers are willing to contribute to the National Rose-Garden.

Admiral Ward and Professor Corbett each spoke on the subject of rose stocks, and the relation of stocks to various soils, climates, and other conditions. E. G. Hill referred to the bright future ahead of the Rose Test-Gardens. He also spoke of the desirability of a larger membership in the American Rose Society, and hoped that more amateur growers would become members.

President Pennock appointed William F. Gude as chairman of a committee to score and judge the roses in the National Test-Garden which might be in bloom a week hence.

The Cornell Meeting

On June 22, 1916 a joint meeting of the American Rose Society and the Syracuse Rose Society was held in connection with an inspection of the Rose Test-Garden at Cornell University, Ithaca, N. Y. Over sixty members of the two organizations made the trip to Ithaca by automobile. There were informal discussions in a corner of the garden, participated in by President Pennock, Robert Pyle, Dr. E. M. Mills, and Dr. Beal.

Later on the American Rose Society convened in the office of Prof. A. E. White, with President Pennock in the chair. Letters were read from Portland, Oregon, and Tacoma, Washington, each asking for the establishment of a rose test-garden. A letter from J. A. Currey, of Portland, promised the coöperation of the city in maintaining the garden, as well as in increasing the membership of the American Rose Society. Upon motion of Dr. A. C. Beal, it was resolved to appoint Mr. Currey chairman of a committee for the establishing of the proposed rose test-garden in Portland.

Secretary Hammond and President Pennock made encouraging statements as to the growing membership of the Society, and as to the value of the American Rose Annual.

There was a discussion participated in by Dr. Beal and Mr. Mulford concerning the employment of a propagator, and the study of the rose stocks. A committee of five was authorized "to arrange a set of rules and a tentative set of prizes for amateur shows," which committee is to report at the autumn meeting of the Executive Committee, so that their recommendations may be published in the 1917 Annual. This committee was appointed, including as chairman Dr. A. C. Beal, together with Prof. David Lumsden, Dr. E. M. Mills, J. H. Dunlop, and J. A. Currey.

Meetings of the Executive Committee

New York City, May 8, 1916.

Messrs. S. S. Pennock, President, Robert Pyle, Harry O. May, Admiral Aaron Ward, F. L. Mulford, and Benjamin Hammond were present.

As the outcome of a request from Admiral Ward for literature, the subject of new printed matter was referred to Mr. McFarland and the Secretary.

On the motion of Mr. Pyle, the Treasurer was authorized to pay to the secretary of the Society of American Florists the premiums received for special prizes by the American Rose Society.

A proposal was received from Jesse A. Currey, of Portland, Ore., to secure a canvasser for members in the northwest states on a commission of one half of the annual membership fees paid. Consideration of the matter was deferred until definite information should be had regarding the supply of Annuals.

Following the presentation by F. L. Mulford of a list of roses planted in the test-garden at Washington, D. C., a motion of Mr. Pyle was carried providing for a committee of five to report an authoritative code of rose nomenclature. Messrs. F. L. Mulford, Alexander Cummings, Jr., George C. Thomas, Jr., A. C. Beal, and J. Horace McFarland were appointed by the President.

The sum of \$100 was placed at the disposal of Mr. McFarland, for obtaining publicity for the Society, and as special solicitor for new members.

Office of Traendley & Schenck, New York City, October 9, 1916.

It was reported that Dr. Van Fleet would assume charge of the Washington Test-Garden.

Applications were received for assistance in the establishment of rose test-gardens at Bellingham, Wash., and College Station, Texas. Interest and good will were expressed, but it was decided that it is practical for the Society to establish only one garden a year, and action was deferred until the matter of the Portland garden is definitely settled.

Hotel Breslin, New York City, October 23, 1916.

It was resolved that Jesse A. Currey, Chairman, Alfred Tucker, and Albert J. Clarke, all of Portland, Ore., should be a committee of the Society to act in conjunction with the committee appointed by the Chamber of Commerce of that place in the matter of a test-garden there.

Admiral Ward reported June 15, July 10, September 15, and October 15, as the dates on which he recorded the condition of roses in his own garden.

F. H. Howard, of Howard & Smith, Los Angeles, Cal., a guest of the meeting, gave an interesting talk, in which he said that roses in his section had two dormant seasons, one from July 1 to September 1, when water was withheld, and the winter resting in December and January, when he did what he called his late pruning.

Admiral Ward, L. J. Reuter, and W. R. Pierson were appointed a committee on the kind of reports that should be had from the Rose-Garden Committee.

Messrs. L. J. Reuter, W. R. Pierson, William F. Gude, Harry O. May, Fred Burki, W. J. Keimel, Herman Knoble, P. Breitmeyer, W. J. Palmer, and J. H. Dunlop were appointed a committee, with the President as chairman, to

solicit money for a guarantee fund for the coming rose show at Philadelphia, if such a show should be held. The committee was asked to try to get fifty firms to subscribe \$100 each.

Horticultural Hall, Philadelphia, November 8, 1916.

Messrs. Ward, Peirce, Reuter, May, Simpson, Pierson, and Hammond were present.

A letter from Messrs. Kallen & Lunnemann, Boskoop, Holland, dated October 16, advised that they expected to send five new Hybrid Tea roses for the trial-grounds here, the same varieties having been sent also to the Bagatelle Garden in Paris. The novelties are: Jonkheer R. de Beerenbrouck (Melanie Soupert \times Joseph Hill); Johanna Hoogevorst (Melanie Soupert \times Lyon Rose); Cornelia Timmermans (Pharisaer \times Le Progres); No. 1036 (Pharisaer \times Chatenay); No. 1076 (Pharisaer \times Laurent Carle); No. 1196 (General Mac-Arthur \times Etoile de France). *It was decided to send these novelties to the Hartford Rose-Garden.

President Pennock reported \$4,565 as the amount so far guaranteed for the annual exhibition proposed for Philadelphia in March, 1917.

Messrs. E. Allen Peirce, Thomas Roland, and J. K. M. L. Farquhar were appointed a committee on prize schedule, and \$750 was specified for plants, \$1,000 for rose-garden, and \$2,000 for cut-flowers.

In the evening a meeting was held for the purpose of obtaining an expression from members of the American Rose Society regarding the next annual meeting and exhibition. Fifty-one men were in attendance.

The Philadelphia Chamber of Commerce invited the Society to hold its meeting in Philadelphia, and the unanimous opinion of those who spoke favored such a plan. The meeting voted that in its judgment such a show was practicable and desirable.

Horticultural Hall, Philadelphia, November 22, 1916.

Twenty-three persons attended and President Pennock presided.

It was decided to hold the annual exhibition of the American Rose Society in the First Regiment Armory, Philadelphia, from March 20 to 23, 1917. Adolph Farenwald was chosen manager, with power to select his assistants, and F. Cowperthwaite as local secretary.

William Kleinheinz was appointed chairman of the committee on exhibits from private growers, and George Burton, chairman, Wallace R. Pierson, George Asmus, E. Allen Peirce, T. P. Langhans, Frank Friedley, Robert Simpson, J. O. Peterson, W. F. Gude, and Leo Niessen as committee on commercial exhibits. W. F. Therkildson was appointed as chairman of the advertising committee.

The admission was set at 50 cents for adults, with trade tickets to be issued at the rate of \$25 a hundred, and E. J. Fancourt was placed in charge of tickets.

*Messrs. Kallen & Lunnemann also, on January 10, 1917, advised Secretary Hammond of their purpose to send in addition the following important roses, in the quantities named: 15 Cissie Easlea, 10 Echo (H. Poly.), 10 Lady Roberts, 10 Katy Meixner, 15 Lady Pirrie, 10 La Hollande, 10 Melody, 6 Mrs. Alfred Tate, 10 Mrs. Charles Russell, 5 Mrs. S. T. Wright, 13 Marie (Poly.), 10 Old Gold, 20 Polleart Rose (Improved La France), 15 Petit Constant (Poly.), 30 Peach Blossom (Poly.), 30 Rothatte (H. Poly.), 6 Wm. Shean.

The continued courtesy of this friend of the American Rose Society is gratefully acknowledged.—EDITOR.

John P. Habermehl was appointed chairman of the committee for the decoration of the Armory. Alfred Burton was made local treasurer. Harry O. May, chairman, Robert Simpson, and Adolph Farenwald were appointed a schedule committee on cut-flowers. Official headquarters were fixed at the office of President Pennock, 1612 Ludlow Street, Philadelphia.

The Pennsylvania Horticultural Society was thanked for its past assistance, and for the offer of the use of the hall for the exhibition of 1917.

New York City, December 11, 1916.

An invitation was accepted for the American Rose Society to join in the Cleveland Flower Show to be held in November, 1917, the special rose day being November 7.

The contract was ordered signed for the First Regiment Armory in Philadelphia for the spring show, March 20 to 23, 1917.

The committee on plant schedule and prizes reported that additional support had permitted an increase in the amount to be awarded for cut roses. A special gold medal, valued at \$50, was offered by Kroeschell Brothers, Chicago, Ill., and the Toronto Horticultural Society has also promised medals.

The sympathy of the Executive Committee over the death of the senior Mr. Reuter, an early life member of the Society, was suitably expressed, and was duly transmitted to Louis J. Reuter and his family.

The guarantee fund for the show now amounts to more than \$6,000, and the following is the list of guarantors:

Messrs. A. B. Scott, C. H. Grakelow, W. K. Harris, W. A. Burpee, George Burton, Conard & Jones, Jos. Heacock, Alfred Burton, Adolph Farenwald, Robert Craig, H. F. Michell, Geo. C. Thomas, Jr., Stephen Mortensen, W. A. Leonard, Florex Gardens, M. Franklin, Lord & Burnham Co., Aug. Doemling, Myers & Santmann, John Burton, H. H. Battles, Louis Burk, J. J. Habermehl's Sons, Edw. Towill, L. B. Coddington, P. Welch, E. G. Hill, A. M. Henshaw, W. H. Elliott, P. Breitmeyer, Cleveland Flower Show Association, Knoble Brothers, John Welsh Young, M. H. Bickley, S. S. Skidelsky, Gude Brothers Co., Robert Simpson, Benjamin Hammond, Admiral Aaron Ward, S. J. Reuter & Son, Harry O. May, S. S. Pennock-Meehan Co., E. Allen Peirce, A. N. Pierson, J. M. Gasser Co., Victor Groshens, Fred Burki, Henry A. Dreer, Budlong Rose Co., Leo Niessen Co., Peter Fisher, H. Bayersdorfer & Co., C. H. Totty, Samuel Murray, Emil Buettner, Pennock Bros., Hentz & Nash, Inc., W. L. Rock Flower Co., George Asmus, Daniel McRorie, John Cook, \$100 each; South Park Floral Co. and Vaughan's Seed Store, \$50 each; W. F. Kasting Company, S. A. Anderson, W. J. Palmer, Robert Scott, Jacob B. Wiese, Chas. Schoenhut, \$25 each; Edward Stroh, \$15.

Awards at the Annual Exhibition at Philadelphia

MARCH 25 TO APRIL 2, 1916

Owing to the pressure on the pages of the Annual, the detailed list of awards at the great show in Philadelphia has been crowded out. The Editor has printed sheets, however, and will gladly supply the Awards to any applicant, prior to July 1, 1917, who will address him at Harrisburg, Pa.

The Study of Rose Black-Spot

The Editor of the 1916 American Rose Annual, while preparing that volume, discovered that there was no literature giving evidence of an orderly study of the subject of rose diseases. A canvass of the colleges and experiment stations and correspondence with the Department of Agriculture at Washington, showed that the rose had never been studied as had carnations, apples, potatoes, and cabbages, and that no means had been devised for contesting its destructive diseases. The second volume of Bailey's "Standard Cyclopedia of Horticulture" (1914) listed only one other rose disease than mildew. There was no scientific knowledge of the black-spot disease.

The Society having authorized an investigation of the subject among its members, and much correspondence having been had, Professor Whetzel, of Cornell University, on behalf of the Cornell Department of Plant Pathology, suggested a plan whereby L. M. Massey, of that department, might be employed by the Society under Professor Whetzel's direction "to spend three months of each year for two years in rose-disease survey and investigation work, traveling as may be required" and "during the remaining nine months of each year his special line of investigation at Cornell would be the diseases of roses." The American Rose Society would support Mr. Massey while in the field one fourth of the time, the cost would not exceed \$1,000 each year upon a two-year arrangement, of which sum \$500 the first year and \$250 the second year would be for traveling and other special expenses. The rest of the expense would be borne by Cornell University.

A letter from President Pennock describing this proposition was sent to members of the American Rose Society, soliciting their contributions, and the response was so satisfactory that the following list of subscribers was speedily obtained for the investigation of black-spot:

Benjamin Dorrance, Dorranceton, Pa.	\$20 00	J. F. Wilcox & Sons, Council Bluffs, Iowa	20 00
John H. Dunlop, Richmond Hill, Ont.	20 00	A. N. Pierson Inc., Cromwell, Conn.	50 00
George C. Thomas, Chestnut Hill, Philadelphia	40 00	E. G. Hill Company, Richmond, Ind.	20 00
L. B. Coddington, Murrel Hill, N.J.	20 00	Florex Gardens, North Wales, Pa.	20 00
Gude Brothers Company, Washing- ton, D. C.	20 00	Alex. B. Scott, Sharon Hill, Pa.	20 00
George Burton, Chestnut Hill, Philadelphia	20 00	Bobbink & Atkins, Rutherford, N. J.	20 00
Jacob D. Eisele, Riverton, N. J.	20 00	Thomas Roland, Nahant, Mass.	15 00
Holton & Hunkle, Milwaukee, Wis.	20 00	Robert Pyle, West Grove, Pa.	20 00
J. Breitmeyer Sons, Detroit, Mich.	20 00	W. J. Palmer, Buffalo, N. Y.	20 00
Bassett & Washburn, Hinsdale, Ill.	20 00	Good & Reese Co., Springfield, Ohio.	20 00
MacRorie & McLaren Co., San Francisco, Cal.	10 00	Emil Buettner, Park Ridge, Ill.	20 00
A. J. Stahelin, Redford, Mich.	20 00	Stuppy Floral Company, St. Joseph, Mo.	20 00
The Montgomery Company, Had- ley, Mass.	20 00	Leedle Floral Company, Springfield, Ohio	10 00
Benjamin Hammond, Beacon, N. Y.	25 00	Malcolm Franklin, Philadelphia	20 00
A. Montgomery, Natick, Mass.	20 00	Jos. Heacock Company, Wyncote, Pa.	20 00
		Fred Burki, Gibsonsia, Pa.	20 00
		J. M. Gasser Company, Cleveland, Ohio	20 00

Registration of New Roses in 1916

According to the rules and regulations of the American Rose Society, the following new roses were registered on the dates given:

By Frank M. Moore, of Chatham, N. J., May 8, 1916:

Muriel Moore. H.T. A sport of My Maryland. Bud bluish white, longer than that of the parent, and not quite so double; flower white; foliage distinctly different, the rich green leaflets being narrower, with edges more fully serrated—in fact, the edges are almost smooth. A profuse bloomer.

By Howard & Smith, of Los Angeles, Calif., May 8, 1916:

Los Angeles. H.T. Mme. Segond Weber \times Lyon Rose. Buds long and pointed, opening to a bloom of large proportions; color flame-pink, shaded to yellow, toned with salmon; foliage light green, extra heavy. Growth exceedingly vigorous; has none of the die-back habits of Lyon Rose.

By Breitmeyer Floral Company, of Mt. Clemens, Mich., July 7, 1916:

Pink Ophelia. H.T. A sport from Ophelia. Color a beautiful shade of rose-pink. Stronger and more vigorous grower than its parent.

By Howard & Smith, of Los Angeles, Calif., October 9, 1916:

California. H.T. Buds long and pointed; flowers full, fairly fragrant; color a burnt orange, shaded golden yellow at base of petals. A strong, vigorous grower in lower California and practically mildew-proof.

By Chas. E. F. Gersdorff, of Washington, D. C., November 11, 1916:

Mrs. Chas. Gersdorff. Cl. H.T. Buds large and like tulips in shape, opening to full double flowers of cup shape; outer petals slightly reflexed; color a delicate pink, lighter on edge and darker in center, interior silver-white; flowers are borne singly, though always in clusters of two to four, and have a strong Hybrid Tea fragrance; durable under trying conditions. The plant is of strong climbing habit; canes from the root average 15 feet in a season, with strong thorns. Profuse and almost constant blooming habit. Has been grown without protection with both northern and southern exposure without winter-killing.

From A. N. Pierson, Inc., Cromwell, Conn.:

Mrs. Belmont Tiffany. H.T. A sport from Sunburst. Golden yellow shading to apricot-orange at the base of the petals, the whole suffused in delicate pink—a distinct and glorified Sunburst.

Mrs. Chas. Bell. H.T. A sport from Radiance. Color light or shell-pink on a salmon-shaded background. Superior in growth to Radiance, being equally vigorous but more robust in habit.

Elizabeth Zeigler. H.W. A sport from Dorothy Perkins, but quite distinct. Color deep rose-pink. Equally vigorous and free in flowering.

From E. G. Hill Company, Richmond, Ind.:

Columbia. H.T. Ophelia \times Mrs. George Shawyer. A large-habited upright grower with large-sized foliage, producing long stiff stems, and bearing a big flower of bright pink, which deepens as the flower matures.

Double Ophelia. H.T. Ophelia \times unnamed seedling. Very similar to the

parent in everything save the fullness of the flower, this variety having twice as many petals as the parent; very clear and brilliant in color.

Rose Premier. H.T. Ophelia \times Mrs. Charles Russell. May be described as a Mrs. Charles Russell, of very easy culture and magnificent in size, form, and foliage, and with a perfectly erect stem; deep rose-pink.

Mary Hill. H.T. Ophelia \times Sunburst. Of Sunburst type, improved in habit, foliage and growth, with immense bud and flower of cream color, with deep orange center.

From Edward Towill, Roslyn, Pennsylvania:

Golden Gem. H.T. A cross of Lady Hillingdon and Harry Kirk. Golden yellow; good stem and free bloomer.

Rules for Registration of New Roses

Any member of the American Rose Society who is the originator of a new rose may register the variety with the American Rose Society without charge for registration. The name of the rose must be given (a number is not sufficient) together with a full description and pedigree of such rose, and this registration shall be considered by the American Rose Society's Executive Committee. It shall then be published in one or more of the trade papers. If no objection to such registration is filed with the Secretary of the Society within three weeks after such publication, the registration shall become permanent. In the event of objection to registration the decision will rest with the Executive Committee. No description of any variety shall be published by the American Rose Society without the sanction of the Executive Committee. Any person not a member of the American Rose Society may register a new rose upon payment of \$3 for each variety so registered.

Adopted at Executive Committee Meeting of November 10, 1913, held in New York City.

Regulations and Scale of Points for Judging Blooms and Plants

The official scale of 100 points for judging outdoor roses is as follows: Floriferousness, 20; vigor, 20; color, 15; size, 15; form, 10; substance, 10; fragrance, 10.

A variety shall be considered undisseminated which cannot be exhibited other than by the introducer.

All roses shall be disqualified where exhibited with more than two growths (one pinch), *except* in classes calling for displays and for 100 or more blooms in one vase, on which two pinches are allowed.

Rules for Judging Groups of Rose Plants.—Size of group or collection, 20; distinctiveness, 15; cultural perfection, 20; number of varieties, 20; arrangement and effect, 25.

Single Specimen Rose Plants.—Size of plants, 20; cultural perfection, 25; floriferousness, 20; foliage, 15; quality of bloom, 10; color of bloom, 10.

All exhibits of cut-flowers will be judged by points in accordance with the following official scale:

	Competitive classes	Novelties for cer- tificates, etc.
Size	15	10
Color	20	20
Stem	20	15
Form	15	15
Substance	15	10
Foliage	15	15
Fragrance (for novelties only)		5
Distinctiveness		10
	100	100

American Rose Society Medals and Certificates for Novelties

A Gold Medal is offered for the best new rose not yet disseminated, whether of domestic or foreign origin. Exhibits are to be judged upon the official scale of the Society, and no Gold Medal is to be awarded to any rose scoring less than 95 points.

A Silver Medal is offered at the same time, and under the same conditions, for a novelty scoring not less than 85 points.

A Certificate of Merit is to be awarded to all novelties scoring 80 points.

It is further ordered that the complete scores of all the entries in the competition be filed with the Secretary of the American Rose Society before the award of any medal is confirmed. No duplicate medal will be awarded. It is understood that though the award of the Gold or Silver Medal or Certificate may be made to the same variety from one exhibitor, exhibited in different centers, only one medal will be delivered to the exhibitor.

The Executive Committee of the American Rose Society reserves to itself the right of selection of the judges who shall pass upon the exhibits in the competition for these medals.

Committees Governing Rose Test-Gardens

Governing Committee.—Alex. Cummings, Jr., Cromwell, Conn., Chairman; Thomas N. Cook, Watertown, Mass., and Wallace R. Pierson, Cromwell, Conn.

Washington Test-Garden.—Robert Pyle, West Grove, Pa., Chairman; Admiral Aaron Ward, Roslyn, N. Y., and Wm. F. Gude, Washington, D. C.

Cornell Test-Garden.—A. C. Beal, Ithaca, N. Y., Chairman; John Watson, Newark, N. Y., and Rev. Dr. E. M. Mills, Syracuse, N. Y.

Hartford Test-Garden.—John Huss, Hartford, Conn., Chairman; Wallace R. Pierson, Cromwell, Conn., and Alex. Cummings, Jr., Cromwell, Conn.

Minneapolis Test-Garden.—Theo. Wirth, Superintendent of Parks, Minneapolis, Minn., and Paul J. Olson, St. Paul, Minn.

At the Hartford Test-Gardens, July 5, 1916

The Hartford Test-Garden Committee, Messrs. Wallace R. Pierson, Alexander Cummings, Jr., and John F. Huss, reported as follows:

The Garden was visited on July 5, 1916. The varieties of this season's entry were not considered in condition to judge until better established.

Among those entered previous to this season, the following climbing roses were examined and received awards: Dazzling Red, 79 points, entered by W. A. Manda, South Orange, N. J.; Mrs. Longwood, 78 points, entered by Conard & Jones, West Grove, Pa.

Local Societies Affiliated with the American Rose Society

Affiliated organizations have paid at the rate of 25 cents per member each year, receive the publications of the Society, and are each supplied with one silver and two bronze medals to be awarded as special American Rose Society prizes at their annual exhibitions.

SYRACUSE ROSE SOCIETY. Rev. E. M. Mills, D.D., President, 823 Summer Ave., Syracuse, N. Y. Dr. Mills is Honorary Vice-President of the American Rose Society, and a member of the Cornell Test-Garden Committee. This Society awarded a silver medal to James M. Gilbert for the best exhibition of roses and a bronze medal to both Mrs. Edmund M. Mills and Mrs. John M. Kulmer for the show held in June, 1916.

THE GARDEN ASSOCIATION of Newport, R. I., with 100 members. Dr. Roderick Terry, President, Newport, R. I.

BROOKLANDS ROSE SOCIETY, of Brooklands, D. C., with 19 members. Mrs. M. B. Downing, Secretary.

LANSDOWNE FLOWER SHOW ASSOCIATION, of Lansdowne, Pa.

The Eighteenth Annual Meeting

The American Rose Society held its eighteenth annual meeting on March 21, 1917, in the Bellevue-Stratford Hotel, Philadelphia, at 9 o'clock A.M., in conjunction with the National Rose Festival of the Society, which occurred March 20 to 23, in the First Regiment Armory, Broad and Callowhill Streets.

Medals Awarded During 1916

A special gold medal was awarded Henry A. Dreer, Inc., of Philadelphia, for their non-competitive rose-garden at the National Flower Show, Philadelphia, March 25 to April 2, 1916.

For the best new roses not in commerce, American Rose Society silver medals were awarded to A. N. Pierson, Cromwell, Conn.; M. H. Walsh, Woods Hole, Mass.; and R. Witterstaeter, Cincinnati, Ohio.

The silver medal offered by the Toronto Horticultural Society for the best exhibit at the Philadelphia Show of any disseminated pink rose, was awarded to Wm. Kleinheinz, of Ogontz, Pa.

Members American Rose Society

An asterisk (*) preceding name indicates Life Membership; dagger (†) indicates Annual Membership; all others are Associate Members.

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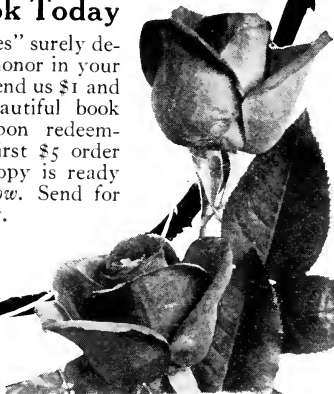
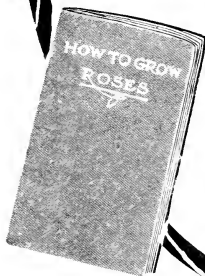
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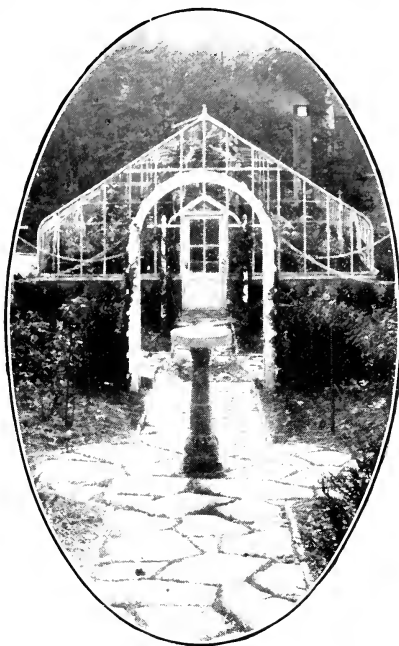
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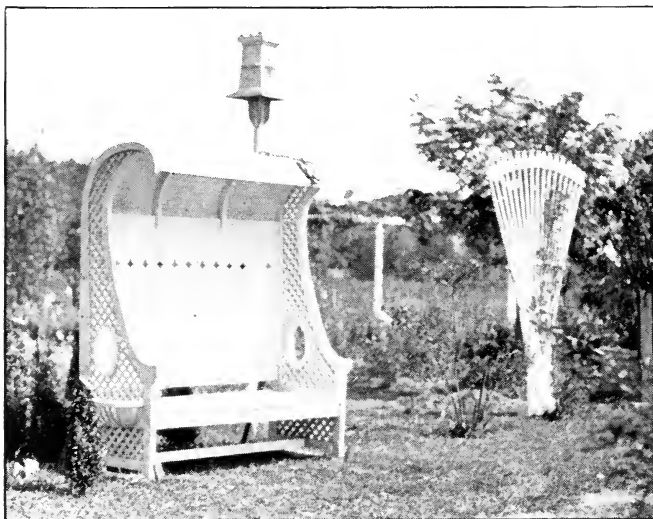
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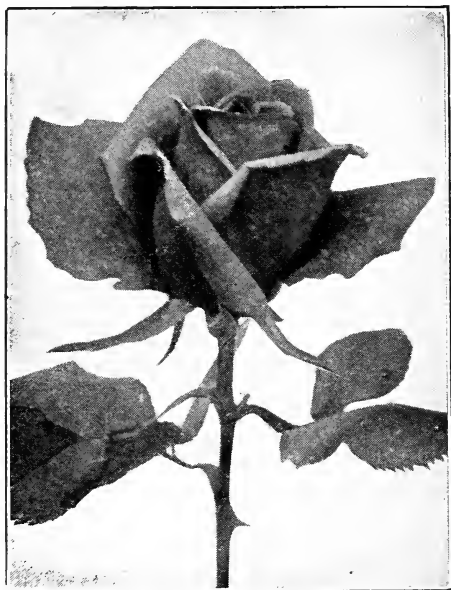
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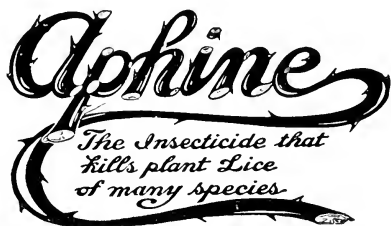
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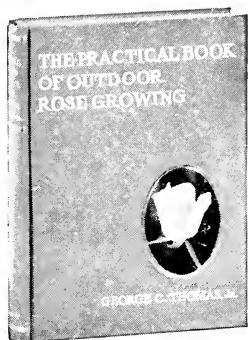
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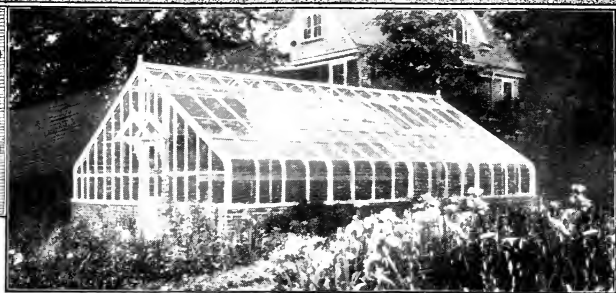
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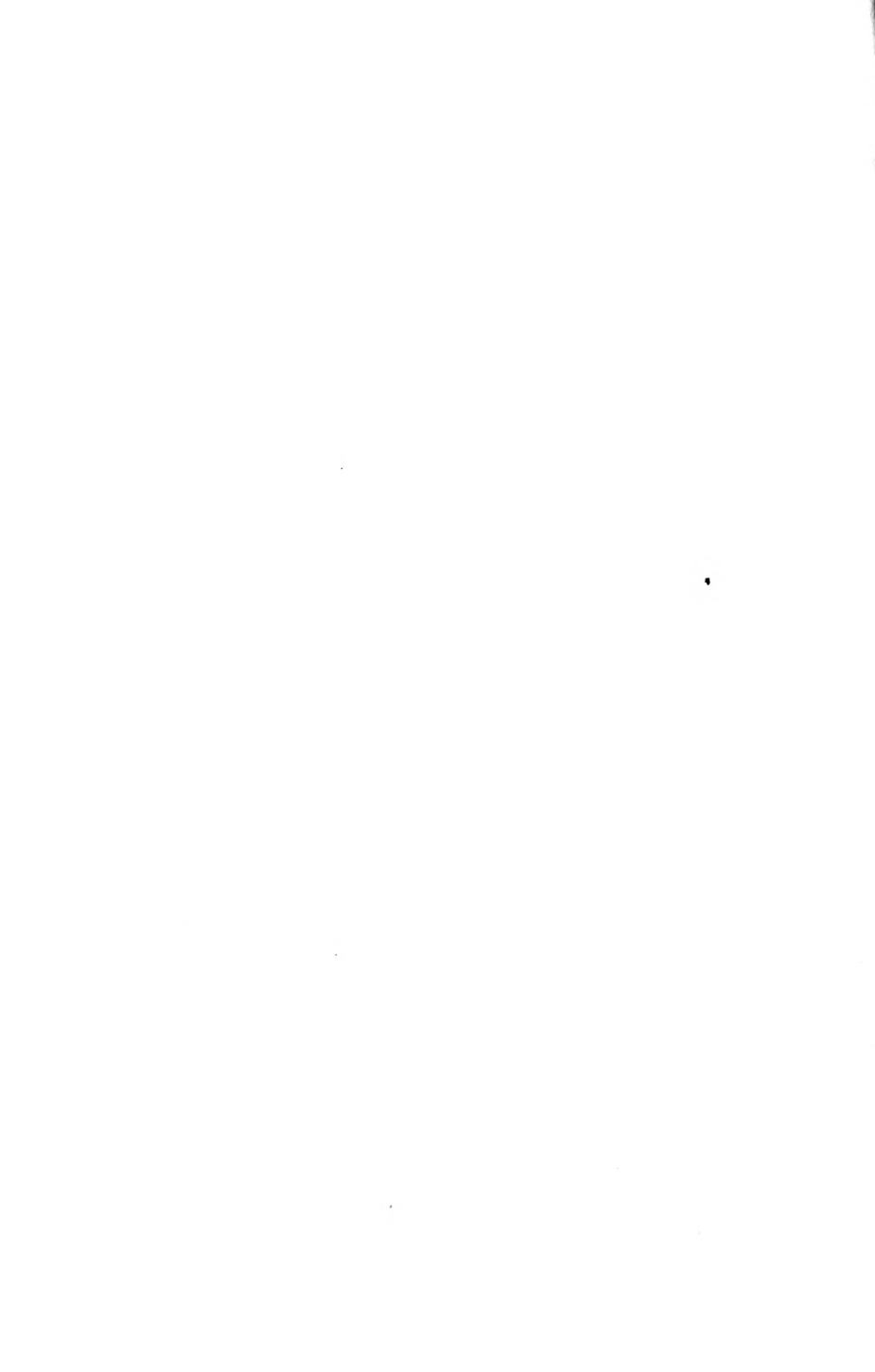
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